U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-258 414

WEIGHTED SENSITIVITY ANALYSIS OF EMISSIONS DATA:

VOLUME II. APPENDIX B. NUMERICAL ANALYSIS

APPENDIX C. EXAMPLE OF APPLIED ANALYSIS

IBM CORPORATION, GAITHERSBURG, MARYLAND

JULY 1973

EPA-450/3-74-022-b

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15. SUPPLEMENTARY NOTES

16. ABSTRACT

Appendix B contains complete weighted sensitivity analyses of the Nationwide Emissions Reports under three different values of the overall permissible error θ, as required by the contract. . .

Appendix C reports an application of the weighted sensitivity analysis technique developed in this project to a concrete air pollution control problem in the Commonwealth of Virginia. It is included in this final report to illustrate the versatility and wide range of applicability of a technique to air pollution control activities requiring statistical analysis of emission inventories.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Nationwide Emissions Report Source Classes Particulate Matter NEDS Emissions Point Sources Area Sources	PRICES SUBJECT TO CHANGE	

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Water Programs
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

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Prepared for

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Office of Air and Water Programs
Office of Air Quality Planning and Standards
Research Triangle Park, N. C. 27711

July 1973

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WEIGHTED SENSITIVITY ANALYSIS

OF EMISSIONS DATA

VOL. II APPENDIX B NUMERICAL ANALYSES
APPENDIX C EXAMPLE OF APPLIED ANALYSIS

Appendix B

NUMERICAL ANALYSES FOR THE NATIONWIDE EMISSION REPORTS

This appendix contains complete weighted sensitivity analyses of the Nationwide Emissions Reports under three different values of the overall permissible error θ, as required by the contract. Additional numerical analyses were run for values of θ as in Table 2.1. The numerical results verify the adequacy of the software.

Weighted Sensitivity Analysis
of the
Nationwide Emissions Report
for θ = 2.0%

WEIGHTED SENSITIVITY 'YSIS REPORT
NATIONAL EMISSIONS TA SYSTEM
****
ENVIRONMENTAL PROTECTION AGENCY
****

NATIONWIDE EMISSIONS REPORT
****
UNITED STATES

RUN DATE: MAY 11, 1973
EMISSIONS AS OF: APRIL 19, 1973

SOURCE HIERARCHY
GRAND TOTAL

DRIVER TABLE 1

PARTICULATES

THETA = 2.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3507743.	4.42	155044.
236	POINT SOURCES	13624732.	2.24	305565.
	TOTAL	17132464.	2.00	342649.

SOX

THETA = 2.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3589057.	5.71	205109.
236	POINT SOURCES	25715088.	2.14	549021.
	TOTAL	29304144.	2.00	586083.

NOX

THETA = 2.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	9237179.	3.04	280815.
236	POINT SOURCES	12105130.	2.66	321466.
	TOTAL	21342304.	2.00	426846.

HC

THETA = 2.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	17684672.	2.29	404298.
236	POINT SOURCES	5422538.	4.13	223875.
	TOTAL	23107200.	2.00	462144.

CO

THETA = 2.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	74560608.	2.31	1723589.
236	POINT SOURCES	25048400.	3.99	999009.
	TOTAL	99609008.	2.00	1992180.

NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

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SOURCE HIERARCHY
POINT SOURCES

DRIVER TABLE 2

PARTICULATES

THETA = 2.24

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	5673194.	3.68	186458.
145	INDUSTRIAL PROCESS (POINT)	8410250.	2.85	240073.
190	SOLID WASTE DISPOSAL	141280.	22.02	31116.
231	OTHER (POINT)	8.	2926.81	234.
	TOTAL	13624732.	2.24	305565.

SOx

THETA = 2.14

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	19105568.	2.48	473232.
145	INDUSTRIAL PROCESS (POINT)	6580464.	4.22	277730.
190	SOLID WASTE DISPOSAL	29049.	63.52	18453.
231	OTHER (POINT)	0.	---	---
	TOTAL	25715072.	2.14	549020.

NOx

THETA = 2.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	8827916.	3.11	274523.
145	INDUSTRIAL PROCESS (POINT)	3252095.	5.12	166622.
190	SOLID WASTE DISPOSAL	25119.	58.30	14644.
231	OTHER (POINT)	0.	---	---
	TOTAL	12105130.	2.66	321466.

HC

THETA = 4.13

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	385365.	15.49	59681.
145	INDUSTRIAL PROCESS (POINT)	4883692.	4.35	212460.
190	SOLID WASTE DISPOSAL	153482.	24.94	37664.
231	OTHER (POINT)	0.	---	---
	TOTAL	5422539.	4.13	223875.

CO

THETA = 3.99

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	6182023.	8.03	496302.
145	INDUSTRIAL PROCESS (POINT)	18012720.	4.70	847166.
190	SOLID WASTE DISPOSAL	853650.	21.60	184425.
231	OTHER (POINT)	0.	---	---
	TOTAL	25048364.	3.99	999903.

WEIGHTED SENSITIVITY ANALYSIS REPORT
NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

RUN DATE: MAY 11, 1973
EMISSIONS AS OF: APRIL 19, 1973

SOURCE HIERARCHY
AREA SOURCES

DRIVER TABLE 3

PARTICULATES

THETA = 4.42

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1952109.	5.92	115662.
189	SOLID WASTE DISPOSAL	617275.	10.54	65040.
216	TRANSPORTATION (AREA)	718081.	9.77	70150.
230	MISCELLANEOUS (AREA)	220278.	17.64	38853.
	TOTAL	3507743.	4.42	155044.

SOX

THETA = 5.71

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	2964961.	6.29	186425.
189	SOLID WASTE DISPOSAL	41595.	53.09	22081.
216	TRANSPORTATION (AREA)	582501.	14.19	82631.
230	MISCELLANEOUS (AREA)	0.	---	---
	TOTAL	3589057.	5.71	205109.

NOX

THETA = 3.04

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1264356.	8.22	103893.
189	SOLID WASTE DISPOSAL	132713.	25.36	33659.
216	TRANSPORTATION (AREA)	7814195.	3.31	258281.
230	MISCELLANEOUS (AREA)	25915.	57.40	14874.
	TOTAL	9237179.	3.04	280815.

HC

THETA = 2.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	227722.	20.15	45878.
189	SOLID WASTE DISPOSAL	1296233.	8.44	109457.
216	TRANSPORTATION (AREA)	14517727.	2.52	366313.
230	MISCELLANEOUS (AREA)	1643035.	7.50	123232.
	TOTAL	17684672.	2.29	404298.

CO

THETA = 2.31

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	623111.	25.29	157586.
189	SOLID WASTE DISPOSAL	3464687.	10.72	371545.
216	TRANSPORTATION (AREA)	69695360.	2.39	1666406.
230	MISCELLANEOUS (AREA)	777451.	22.64	176001.
	TOTAL	74560597.	2.31	1723589.

WEIGHTED SENSITIVITY ANALYSES REPORT
NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

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SOURCE HIERARCHY
FUEL COMBUSTION
POINT SOURCES

DRIVER TABLE 4

PARTICULATES

THETA = 3.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	5070238.	3.68	186403.
126	INTERNAL COMBUSTION (POINT)	2956.	152.26	4501.
	TOTAL	5073194.	3.68	186458.

SOx

THETA = 2.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	19095024.	2.48	473101.
126	INTERNAL COMBUSTION (POINT)	10537.	105.47	11114.
	TOTAL	19105552.	2.48	473232.

NOX

THETA = 3.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	7980397.	3.27	261013.
126	INTERNAL COMBUSTION (POINT)	847519.	10.04	85060.
	TOTAL	8827916.	3.11	274523.

HC

THETA = 15.49

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	356005.	16.11	57363.
126	INTERNAL COMBUSTION (POINT)	29360.	56.11	16473.
	TOTAL	385365.	15.49	59681.

CO

THETA = 8.03

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	6165954.	8.04	495655.
126	INTERNAL COMBUSTION (POINT)	16069.	157.47	25303.
	TOTAL	6182023.	8.03	496300.

WEIGHTED SENSITIVITY ANALYSIS REPORT
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SOURCE HIERARCHY
INDUSTRIAL PROCESS (PCINT)

DRIVER TABLE 5

PARTICULATES

THETA = 2.85

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	194243.	18.78	36485.
133	FOOD/AGRICULTURAL	215492.	17.83	38429.
134	PRIMARY METAL	1476560.	6.81	100592.
135	SECONDARY METALS	144426.	21.78	31460.
136	MINERAL PRODUCTS	4589503.	3.86	177346.
137	PETROLEUM INDUSTRY	1432023.	6.92	99064.
138	WOOD PRODUCTS	323630.	14.55	47094.
139	EVAPORATION	881.	278.90	2457.
140	METAL FABRICATION	4035.	130.32	5258.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	501.	369.85	1853.
143	INPROCESS FUEL	20592.	57.69	11879.
144	OTHER/NOT CLASSIFIED	8364.	90.52	7571.
	TOTAL	8410250.	2.85	240073.

SOX

THETA = 4.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	431773.	16.48	71141.
133	FOOD/AGRICULTURAL	912.	358.51	3270.
134	PRIMARY METAL	3792555.	5.56	210844.
135	SECONDARY METALS	89538.	36.18	32396.
136	MINERAL PRODUCTS	305369.	19.59	59828.
137	PETROLEUM INDUSTRY	1832762.	8.00	146571.
138	WOOD PRODUCTS	81283.	37.97	30867.
139	EVAPORATION	2545.	214.61	5462.
140	METAL FABRICATION	2266.	227.44	5154.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	40.	1711.04	685.
143	INPROCESS FUEL	30513.	61.98	18912.
144	OTHER/NOT CLASSIFIED	10908.	103.66	11308.
	TOTAL	6580464.	4.22	277730.

NOX

THETA = 5.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	91649.	30.52	27971.
133	FOOD/AGRICULTURAL	2989.	169.00	5051.

1.	PRIMARY METAL	15060.	75.29	11339.
135	SECONDARY METALS	1776.	219.24	3894.
136	MINERAL PRODUCTS	99161.	29.34	29095.
137	PETROLEUM INDUSTRY	3020727.	5.32	160585.
138	WOOD PRODUCTS	2230.	195.66	4363.
139	EVAPORATION	545.	395.78	2157.
140	METAL FABRICATION	905.	307.13	2780.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	16618.	71.67	11911.
144	OTHER/NOT CLASSIFIED	433.	444.02	1923.
	TOTAL	3252093.	5.12	166622.

HC

THETA = 4.35

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
132	CHEMICAL MANUFACTURING	2151455.	6.55	141016.
133	FOOD/AGRICULTURAL	22255.	64.45	14342.
134	PRIMARY METAL	111779.	28.76	32143.
135	SECONDARY METALS	2264.	202.05	4574.
136	MINERAL PRODUCTS	7559.	110.58	8359.
137	PETROLEUM INDUSTRY	865146.	10.34	89423.
138	WOOD PRODUCTS	12764.	85.10	10862.
139	EVAPORATION	1598193.	7.60	121540.
140	METAL FABRICATION	1002.	303.72	3043.
141	LEATHER PRODUCTS	380.	493.19	1874.
142	TEXTILE MANUFACTURING	4778.	139.09	6645.
143	INPROCESS FUEL	12479.	86.06	10740.
144	OTHER/NOT CLASSIFIED	93637.	31.42	29419.
	TOTAL	4883691.	4.35	212460.

B-8

CO

THETA = 4.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
132	CHEMICAL MANUFACTURING	5799504.	8.29	480700.
133	FOOD/AGRICULTURAL	548.	852.68	4673.
134	PRIMARY METAL	2980138.	11.56	344585.
135	SECONDARY METALS	1393596.	16.91	235639.
136	MINERAL PRODUCTS	18723.	145.88	27313.
137	PETROLEUM INDUSTRY	7254689.	7.41	537635.
138	WOOD PRODUCTS	527647.	27.48	144994.
139	EVAPORATION	2110.	434.55	9169.
140	METAL FABRICATION	38.	3238.07	1230.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	4881.	285.71	13945.
144	OTHER/NOT CLASSIFIED	30860.	113.63	35065.
	TOTAL	18012672.	4.70	847164.

WEIGHTED SENSITIVITY ANALYSIS REPORT
NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
POINT SOURCES

DRIVER TABLE 6

PARTICULATES

THETA = 22.02

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60658.	33.61	20388.
170	COMMERCIAL-INSTITUTIONAL	3527.	139.39	4916.
186	INDUSTRIAL	77089.	29.82	22985.
187	OTHER (POINT)	7.	3128.90	219.
	TOTAL	141281.	22.02	31116.

SOX

THETA = 63.52

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	6920.	130.15	9006.
170	COMMERCIAL-INSTITUTIONAL	779.	387.91	3022.
186	INDUSTRIAL	21350.	74.10	15820.
187	OTHER (POINT)	0.	---	---
	TOTAL	29049.	63.52	18453.

NOX

THETA = 58.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	13771.	78.73	10843.
170	COMMERCIAL-INSTITUTIONAL	786.	329.56	2590.
186	INDUSTRIAL	10562.	89.90	9496.
187	OTHER (POINT)	0.	---	---
	TOTAL	25119.	58.30	14644.

HC

THETA = 24.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60731.	39.01	23692.
170	COMMERCIAL-INSTITUTIONAL	2166.	206.57	6474.
186	INDUSTRIAL	90584.	31.94	28935.
187	OTHER (POINT)	0.	---	---
	TOTAL	153481.	24.54	37664.

CO

THETA = 21.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	201869.	44.43	89684.
170	COMMERCIAL-INSTITUTIONAL	15138.	162.24	24559.
186	INDUSTRIAL	636643.	25.02	159267.
187	OTHER (POINT)	0.	---	---
	TOTAL	853650.	21.60	184425.

WEIGHTED SENSITIVITY ANALYSIS REPORT
NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

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DRIVER TABLE 7

SOURCE HIERARCHY
FUEL COMBUSTION
AREA SOURCES

PARTICULATES

THETA = 5.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1952109.	5.92	115662.
	TOTAL	1952109.	5.92	115662.

SOX

THETA = 6.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	2964961.	6.29	186425.
	TOTAL	2964961.	6.29	186425.

NOX

THETA = 8.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1264356.	8.22	103893.
	TOTAL	1264356.	8.22	103893.

HC

THETA = 20.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	227722.	20.15	45878.
	TOTAL	227722.	20.15	45878.

CO

THETA = 25.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	623111.	25.29	157566.
	TOTAL	623111.	25.29	157566.

WEIGHTED SENSITIVITY ANALYSIS REPORT
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ENVIRONMENTAL PROTECTION AGENCY

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
AREA SOURCES

DRIVER TABLE 6

PARTICULATES

THETA = 10.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	294325.	15.26	44911.
169	COMMERCIAL-INSTITUTIONAL	70503.	31.18	21981.
185	INDUSTRIAL	252447.	16.48	41593.
	TOTAL	617275.	10.54	65040.

SOX

THETA = 53.09

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	10172.	107.35	10919.
169	COMMERCIAL-INSTITUTIONAL	6403.	135.30	8663.
185	INDUSTRIAL	25020.	68.45	17125.
	TOTAL	41595.	53.09	22081.

NOX

THETA = 25.36

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	49070.	41.71	20467.
169	COMMERCIAL-INSTITUTIONAL	19783.	65.69	12996.
185	INDUSTRIAL	63860.	36.56	23349.
	TOTAL	132713.	25.36	33659.

HC

THETA = 8.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	842238.	10.48	88231.
169	COMMERCIAL-INSTITUTIONAL	108552.	29.18	31675.
185	INDUSTRIAL	345443.	16.36	56506.
	TOTAL	1296233.	8.44	109457.

CO

THETA = 10.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	2404528.	12.87	309530.
169	COMMERCIAL-INSTITUTIONAL	258068.	39.29	101402.
185	INDUSTRIAL	801991.	22.29	178757.
	TOTAL	3464687.	10.72	371545.

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DRIVER TABLE 9

SOURCE HIERARCHY
TRANSPORTATION (AREA)

PARTICULATES

THETA = 9.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	377243.	13.48	50849.
203	DIESEL	107901.	25.20	27193.
208	AIRCRAFT	211138.	18.02	38038.
214	VESSELS	21799.	56.07	12222.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	718081.	9.77	70150.

SOX

THETA = 14.19

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	226643.	22.74	51542.
203	DIESEL	240312.	21.73	53950.
208	AIRCRAFT	42071.	52.78	22207.
214	VESSELS	65474.	42.31	27703.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	582500.	14.19	82631.

NOX

THETA = 3.31

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	5869274.	3.81	224223.
203	DIESEL	1736867.	7.01	121768.
208	AIRCRAFT	113021.	27.48	31062.
214	VESSELS	75033.	33.73	25309.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	7814195.	3.31	258281.

HC

THETA = 2.52

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	12742645.	2.69	343189.
203	DIESEL	262421.	18.77	49250.
208	AIRCRAFT	513031.	13.42	68861.
214	VESSELS	86250.	32.74	28235.
215	GAS HANDLING EVAP LOSS	913379.	10.06	91882.
	TOTAL	14517726.	2.52	366313.

CO

THETA = 2.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	67359072.	2.43	1638236.
203	DIESEL	1084489.	19.17	207870.
208	AIRCRAFT	896217.	21.08	188967.
214	VESSELS	355571.	33.47	119026.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	69695328.	2.39	1666405.

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SOURCE HIERARCHY
MISCELLANEOUS (AREA)

DRIVER TABLE 10

PARTICULATES

THETA = 17.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	220278.	17.64	38853.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	220278.	17.64	38853.

SOX

THETA = 0.0

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	0.	---	---
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	0.	0.0	0.

NOX

THETA = 57.40

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	25915.	57.40	14874.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---

	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	25915.	57.40	14874.

HC

THETA = 7.50

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	259150.	18.89	48942.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	1383855.	8.17	113096.
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	1643005.	7.50	123232.

CO

THETA = 22.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	777451.	22.64	176001.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	777451.	22.64	176001.

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SOURCE HIERARCHY
EXTERNAL COMBUSTION
POINT SOURCES

DRIVER TABLE 11

PARTICULATES

THETA = 3.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	3416197.	4.48	153007.
70	INDUSTRIAL FUEL	1562142.	6.62	103466.
98	COMM-INSTITUTIONAL FUEL	89158.	27.72	24718.
99	OTHER (POINT)	2741.	158.12	4334.
	TOTAL	5070238.	3.68	186403.

SOX

THETA = 2.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	15317302.	2.77	423726.
70	INDUSTRIAL FUEL	3601454.	5.70	205463.
98	COMM-INSTITUTIONAL FUEL	176071.	25.80	45429.
99	OTHER (POINT)	211.	745.34	1573.
	TOTAL	19095024.	2.48	473101.

NOX

THETA = 3.27

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	5365898.	3.99	214028.
70	INDUSTRIAL FUEL	2449426.	5.90	144605.
98	COMM-INSTITUTIONAL FUEL	164827.	22.76	37511.
99	OTHER (POINT)	246.	589.09	1449.
	TOTAL	7960397.	3.27	261013.

HC

THETA = 16.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	121528.	27.58	33515.
70	INDUSTRIAL FUEL	223016.	20.36	45402.
98	COMM-INSTITUTIONAL FUEL	11461.	89.80	10292.
99	OTHER (POINT)	0.	---	---
	TOTAL	356005.	16.11	57363.

CO

THETA = 8.04

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	6051697.	8.11	491041.
70	INDUSTRIAL FUEL	88455.	67.11	59366.
98	COMM-INSTITUTIONAL FUEL	25803.	124.26	32064.
99	OTHER (POINT)	0.	---	---
	TOTAL	6165955.	8.04	495655.

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SOURCE HIERARCHY
INTERNAL COMBUSTION (POINT)

DRIVER TABLE 12

PARTICULATES

THETA = 152.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1151.	244.01	2809.
116	INDUSTRIAL FUEL	1429.	218.99	3129.
120	COMM-INSTITUTIONAL	53.	1137.11	603.
124	ENGINE-TESTING	323.	460.61	1489.
125	OTHER (POINT)	0.	---	---
	TOTAL	2956.	152.26	4501.

SOX

THETA = 105.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	2567.	213.69	5485.
116	INDUSTRIAL FUEL	7799.	122.60	9561.
120	COMM-INSTITUTIONAL	99.	1088.12	1077.
124	ENGINE-TESTING	72.	1275.93	919.
125	OTHER (POINT)	0.	---	---
	TOTAL	10537.	105.47	11114.

NOX

THETA = 10.04

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	14498.	76.74	11125.
116	INDUSTRIAL FUEL	831285.	10.13	84241.
120	COMM-INSTITUTIONAL	1339.	252.50	3381.
124	ENGINE-TESTING	397.	463.72	1841.
125	OTHER (POINT)	0.	---	---
	TOTAL	847519.	10.04	85060.

HC

THETA = 56.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	331.	528.44	1749.
116	INDUSTRIAL FUEL	28291.	57.16	16171.
120	COMM-INSTITUTIONAL	142.	806.80	1146.
124	ENGINE-TESTING	377.	495.15	1867.
125	OTHER (POINT)	220.	648.19	1426.
	TOTAL	29361.	56.11	16474.

CO

THETA = 157.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1726.	480.46	8293.
116	INDUSTRIAL FUEL	12592.	177.88	22399.
120	COMM-INSTITUTIONAL	811.	700.92	5684.
124	ENGINE-TESTING	940.	651.05	6120.
125	OTHER (POINT)	0.	---	---
	TOTAL	16069.	157.47	25303.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
GOVERNMENT (POINT)

DRIVER TABLE 13

PARTICULATES

THETA = 33.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	34619.	44.49	15403.
150	OPEN BURNING	26039.	51.30	13358.
151	OTHER	0.	---	---
	TOTAL	60658.	33.61	20388.

SOX

THETA = 130.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	5323.	148.39	7899.
150	OPEN BURNING	1597.	270.92	4327.
151	OTHER	0.	---	---
	TOTAL	6920.	130.15	9006.

NOX

THETA = 78.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	4268.	141.43	6036.
150	OPEN BURNING	9503.	94.78	9007.
151	OTHER	0.	---	---
	TOTAL	13771.	78.73	10843.

HC

THETA = 39.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	12453.	86.15	10728.
150	OPEN BURNING	48278.	43.75	21124.
151	OTHER	0.	---	---
	TOTAL	60731.	39.01	23692.

CO

THETA = 44.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	64403.	78.66	50656.
150	OPEN BURNING	137467.	53.84	74008.
151	OTHER	0.	---	---
	TOTAL	201870.	44.43	89684.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
POINT SOURCES

DRIVER TABLE 14

PARTICULATES

THETA = 139.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1263.	232.90	2942.
163	OPEN BURNING	1159.	243.13	2818.
165	APARTMENT	1104.	249.11	2750.
167	OTHER	0.	---	---
	TOTAL	3526.	139.39	4915.

SOX

THETA = 387.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	761.	392.72	2989.
163	OPEN BURNING	0.	---	---
165	APARTMENT	19.	2485.40	472.
167	OTHER	0.	---	---
	TOTAL	780.	387.91	3026.

NOX

THETA = 329.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	534.	399.83	2135.
163	OPEN BURNING	136.	792.28	1078.
165	APARTMENT	116.	857.87	995.
167	OTHER	0.	---	---
	TOTAL	786.	329.56	2590.

HC

THETA = 206.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1341.	242.54	3521.
163	OPEN BURNING	273.	581.86	1588.
165	APARTMENT	552.	409.20	2259.
167	OTHER	0.	---	---
	TOTAL	2166.	206.57	4474.

CO

THETA = 162.24

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	10989.	190.41	20925.
163	OPEN BURNING	3409.	341.87	11654.
165	APARTMENT	740.	733.78	5430.
167	OTHER	0.	---	---
	TOTAL	15138.	162.24	24559.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
INDUSTRIAL
POINT SOURCES

DRIVER TABLE 15

PARTICULATES

THETA = 29.82

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	62791.	33.04	20744.
177	OPEN BURNING	14246.	69.36	9881.
179	AUTO BODY INCINERATION	14.	2212.46	310.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	38.	1342.92	510.
	TOTAL	77089.	29.82	22985.

SOX

THETA = 74.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	17945.	80.82	14503.
177	OPEN BURNING	255.	677.99	1729.
179	AUTO BODY INCINERATION	0.	---	---
181	RAIL CAR BURNING	0.	---	---
183	OTHER	3150.	192.90	6076.
	TOTAL	21350.	74.10	15820.

NOX

THETA = 89.90

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	7788.	104.70	8154.
177	OPEN BURNING	2766.	175.69	4860.
179	AUTO BODY INCINERATION	1.	9239.97	92.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	8.	3266.87	261.
	TOTAL	10563.	89.90	9497.

HC

THETA = 31.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	55589.	40.78	22667.
177	OPEN BURNING	34913.	51.45	17964.
179	AUTO BODY INCINERATION	3.	5550.61	167.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	79.	1081.65	855.
	TOTAL	90584.	31.94	28935.

CO

THETA = 25.02

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	587646.	26.04	153016.
177	OPEN BURNING	48957.	90.21	44166.
179	AUTO BODY INCINERATION	17.	4841.21	823.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	22.	4255.66	936.
	TOTAL	636642.	25.02	159267.

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SOURCE HIERARCHY:
EXTERNAL COMBUSTION
AREA SOURCES

DRIVER TABLE 16

THETA = 5.52

PARTICULATES

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	264885.	16.08	42606.
69	INDUSTRIAL FUEL	1412216.	6.97	98376.
97	COMM-INSTITUTIONAL FUEL	275008.	15.79	43412.
	TOTAL	1952109.	5.92	115662.

THETA = 6.29

SOX

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	727227.	12.70	92327.
69	INDUSTRIAL FUEL	1200813.	9.88	118640.
97	COMM-INSTITUTIONAL FUEL	1036922.	10.63	110247.
	TOTAL	2964962.	6.29	186425.

THETA = 8.22

NOX

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	250606.	18.46	46254.
69	INDUSTRIAL FUEL	516042.	12.86	66373.
97	COMM-INSTITUTIONAL FUEL	497708.	13.10	65183.
	TOTAL	1264356.	8.22	103893.

THETA = 20.15

HC

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	128421.	26.83	34453.
69	INDUSTRIAL FUEL	67205.	37.09	24923.
97	COMM-INSTITUTIONAL FUEL	32096.	53.66	17224.
	TOTAL	227722.	20.15	45878.

THETA = 25.29

CO

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	557957.	26.72	149100.
69	INDUSTRIAL FUEL	24461.	127.63	31219.
97	COMM-INSTITUTIONAL FUEL	40693.	98.95	40266.
	TOTAL	623111.	25.29	157566.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
RESIDENTIAL (AREA)

DRIVER TABLE 17

PARTICULATES

THETA = 15.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	179419.	19.54	35065.
155	OPEN BURNING	114906.	24.42	28061.
	TOTAL	294325.	15.26	44911.

SOX

THETA = 107.35

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	2990.	198.00	5920.
155	OPEN BURNING	7182.	127.75	9175.
	TOTAL	10172.	107.35	10919.

NOX

THETA = 41.71

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	5981.	119.47	7146.
155	OPEN BURNING	43090.	44.51	19180.
	TOTAL	49071.	41.71	20468.

HC

THETA = 10.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	598064.	12.43	74349.
155	OPEN BURNING	244174.	19.46	47506.
	TOTAL	842238.	10.48	88231.

CO

THETA = 12.87

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	1794192.	14.90	267370.
155	OPEN BURNING	610436.	25.55	155955.
	TOTAL	2404628.	12.87	309530.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
AREA SOURCES

DRIVER TABLE 18

PARTICULATES

THETA = 31.18

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	31949.	46.31	14797.
162	OPEN BURNING	38554.	42.16	16255.
	TOTAL	70503.	31.18	21981.

SOX

THETA = 135.20

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	3994.	171.33	6843.
162	OPEN BURNING	2410.	220.56	5315.
	TOTAL	6404.	135.30	8665.

NOX

THETA = 65.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	5325.	126.62	6742.
162	OPEN BURNING	14458.	76.84	11110.
	TOTAL	19783.	65.69	12996.

HC

THETA = 29.18

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	26624.	58.92	15687.
162	OPEN BURNING	81928.	33.59	27518.
	TOTAL	108552.	29.18	31675.

CO

THETA = 39.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	53248.	86.50	46061.
162	OPEN BURNING	204820.	44.11	90337.
	TOTAL	258068.	39.29	101402.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
INDUSTRIAL
AREA SOURCES

DRIVER TABLE 19

PARTICULATES

THETA = 16.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	147877.	21.53	31834.
176	OPEN BURNING	104570.	25.60	26770.
	TOTAL	252447.	16.48	41593.

SOX

THETA = 68.45

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	18485.	79.63	14720.
176	OPEN BURNING	6536.	133.92	8753.
	TOTAL	25021.	68.45	17126.

NOX

THETA = 36.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	24648.	58.85	14505.
176	OPEN BURNING	39214.	46.66	18297.
	TOTAL	63860.	36.56	23349.

HC

THETA = 16.36

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	123230.	27.39	33749.
176	OPEN BURNING	222212.	20.39	45320.
	TOTAL	345442.	16.36	56505.

CO

THETA = 22.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	246461.	40.21	99099.
176	OPEN BURNING	555530.	26.78	148776.
	TOTAL	801991.	22.29	178757.

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SOURCE HIERARCHY =
TRANSPORTATION (AREA)
LAND VEHICLES
GASOLINE

DRIVER TABLE 20

PARTICULATES

THETA = 13.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	344770.	14.10	48608.
196	HEAVY VEHICLES	20573.	57.72	11874.
197	OFF HIGHWAY	11900.	75.89	9031.
	TOTAL	377243.	13.48	50845.

SOX

THETA = 22.74

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	206862.	23.80	49242.
196	HEAVY VEHICLES	12344.	97.45	12029.
197	OFF HIGHWAY	7437.	125.54	9337.
	TOTAL	226643.	22.74	51542.

NOX

THETA = 3.81

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	4941699.	4.16	205394.
196	HEAVY VEHICLES	685779.	11.16	76514.
197	OFF HIGHWAY	261797.	18.06	47275.
	TOTAL	5889275.	3.81	224224.

HC

THETA = 2.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	10522089.	2.96	311868.
196	HEAVY VEHICLES	1357178.	8.13	113639.
197	OFF HIGHWAY	822577.	10.60	87195.
	TOTAL	12742644.	2.69	343189.

CO

THETA = 2.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	57097616.	2.64	1508299.
196	HEAVY VEHICLES	5754393.	8.32	478827.
197	OFF HIGHWAY	4507067.	9.40	423766.
	TOTAL	67359096.	2.43	1638236.

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SOURCE HIERARCHY
TRANSPORTATION (AAFA)
LAND VEHICLES
DIESEL

DRIVER TABLE 21

PARTICULATES

THETA = 25.20

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	40210.	41.28	16600.
201	OFF HIGHWAY	15494.	66.51	10304.
202	RAIL	52197.	36.23	18913.
	TOTAL	107901.	25.20	27193.

SOX

THETA = 21.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	80421.	38.18	30703.
201	OFF HIGHWAY	32180.	60.35	19422.
202	RAIL	135712.	29.39	39884.
	TOTAL	248313.	21.73	53950.

NOX

THETA = 7.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	1139292.	8.66	98621.
201	OFF HIGHWAY	440984.	13.91	61357.
202	RAIL	156591.	23.35	36562.
	TOTAL	1736867.	7.01	121768.

HC

THETA = 18.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	113929.	28.48	32450.
201	OFF HIGHWAY	44098.	45.78	20189.
202	RAIL	104394.	29.76	31063.
	TOTAL	262421.	18.77	49250.

CO

THETA = 19.17

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	670172.	24.38	163407.
201	OFF HIGHWAY	268166.	38.55	103367.
202	RAIL	146151.	52.21	76310.
	TOTAL	1084489.	19.17	207870.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
AIRCRAFT

DRIVER TABLE 22

PARTICULATES

THETA = 18.62

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	147475.	21.55	31791.
206	CIVIL	8438.	90.12	7604.
207	COMMERCIAL	55226.	35.23	19454.
	TOTAL	211139.	18.02	38039.

SOX

THETA = 52.78

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	28161.	64.52	18169.
206	CIVIL	1676.	264.46	4432.
207	COMMERCIAL	12235.	97.89	11976.
	TOTAL	42072.	52.78	22207.

NOX

THETA = 27.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	70847.	34.71	24593.
206	CIVIL	7622.	105.83	8066.
207	COMMERCIAL	34551.	49.71	17174.
	TOTAL	113020.	27.48	31062.

HC

THETA = 13.42

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	343120.	16.41	56315.
206	CIVIL	37369.	49.73	18585.
207	COMMERCIAL	132542.	26.41	35001.
	TOTAL	513031.	13.42	68861.

CO

THETA = 21.08

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	368317.	32.89	121140.
206	CIVIL	213538.	43.20	92239.
207	COMMERCIAL	314362.	35.60	111916.
	TOTAL	896217.	21.08	188967.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
VESSELS

DRIVER TABLE 23

PARTICULATES

THETA = 56.07

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	232.02	2954.
211	DIESEL FUEL	13607.	70.81	9678.
212	RESIDUAL OIL	6036.	106.55	6432.
213	GASOLINE	823.	288.56	2375.
	TOTAL	21799.	56.07	12222.

SOX

THETA = 42.31

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	3183.	191.90	6108.
211	DIESEL FUEL	35535.	57.43	20409.
212	RESIDUAL OIL	26242.	66.83	17538.
213	GASOLINE	514.	477.54	2455.
	TOTAL	65474.	42.31	27703.

NOX

THETA = 33.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	191.	668.55	1277.
211	DIESEL FUEL	41002.	45.63	18709.
212	RESIDUAL OIL	15745.	73.63	11594.
213	GASOLINE	18095.	68.69	12429.
	TOTAL	75033.	33.73	25309.

HC

THETA = 32.74

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	269.46	3430.
211	DIESEL FUEL	27334.	58.15	15895.
212	RESIDUAL OIL	787.	342.70	2697.
213	GASOLINE	56856.	40.32	22924.
	TOTAL	86250.	32.74	28235.

CO

THETA = 33.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	5729.	263.72	15108.
211	DIESEL FUEL	38268.	102.04	39048.
212	RESIDUAL OIL	52.	2768.07	1439.
213	GASOLINE	311523.	35.76	111410.
	TOTAL	355572.	33.47	119026.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
ELEC GENERATION (POINT)

DRIVER TABLE 24

PARTICULATES

THETA = 4.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	19246.	59.67	11484.
24	BITUMINOUS COAL	3314900.	4.55	150721.
25	LIGNITE	27872.	49.59	13820.
26	RESIDUAL OIL	27500.	49.92	13728.
27	DISTILLATE OIL	3519.	139.55	4911.
28	NATURAL GAS	20348.	58.03	11809.
29	PROCESS GAS	46.	1220.56	561.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	240.	534.36	1282.
33	OTHER	2527.	164.68	4161.
	TOTAL	3416198.	4.48	153007.

SOX

THETA = 2.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	47636.	49.61	23630.
24	BITUMINOUS COAL	13997369.	2.89	405057.
25	LIGNITE	58896.	44.61	26275.
26	RESIDUAL OIL	1168726.	10.01	117044.
27	DISTILLATE OIL	21026.	74.66	15699.
28	NATURAL GAS	11410.	101.36	11565.
29	PROCESS GAS	10160.	107.41	10913.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	0.	---	---
33	OTHER	2080.	237.39	4938.
	TOTAL	15317302.	2.77	423726.

NOX

THETA = 3.99

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	12831.	81.57	10466.
24	BITUMINOUS COAL	3437562.	4.98	171308.
25	LIGNITE	757295.	10.62	80405.
26	RESIDUAL OIL	531873.	12.67	67384.

2	DISTILLATE OIL	19392.	66.35	12867.
28	NATURAL GAS	603619.	11.89	71785.
29	PROCESS GAS	3105.	165.81	5148.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	200.	653.33	1307.
33	OTHER	0.	---	---
	TOTAL	5365897.	3.99	214028.

HC

THETA = 27.58

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	152.	779.80	1185.
24	BITUMINOUS COAL	47146.	44.28	20875.
25	LIGNITE	0.	---	---
26	RESIDUAL OIL	10734.	92.79	9961.
27	DISTILLATE OIL	389.	487.45	1896.
28	NATURAL GAS	62955.	38.32	24122.
29	PROCESS GAS	102.	951.92	971.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	50.	1359.62	680.
33	OTHER	0.	---	---
	TOTAL	121528.	27.58	33515.

CO

THETA = 8.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	3417.	341.47	11668.
24	BITUMINOUS COAL	151896.	51.22	77795.
25	LIGNITE	5895000.	8.22	484642.
26	RESIDUAL OIL	215.	1361.32	2927.
27	DISTILLATE OIL	7.	7544.49	528.
28	NATURAL GAS	1123.	595.65	6689.
29	PROCESS GAS	0.	---	---
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	40.	3156.09	1262.
33	OTHER	0.	---	---
	TOTAL	6051698.	8.11	491041.

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SOURCE HIERARCHY — DRIVER TABLE 25
FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
POINT SOURCES

PARTICULATES

THETA = 6.62

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	10088.	82.42	8315.
41	BITUMINOUS COAL	1233810.	7.45	91952.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	54042.	35.61	19244.
49	DISTILLATE OIL	23899.	53.55	12798.
52	NATURAL GAS	75866.	30.05	22801.
55	PROCESS GAS	10885.	79.35	8637.
58	COKE	1143.	244.86	2799.
61	WOOD	147086.	21.59	31749.
63	LIQUID PETROL GAS	256.	517.39	1325.
65	BAGASSE	0.	---	---
67	OTHER	5066.	116.31	5892.
	TOTAL	1562141.	6.62	103466.

SOX

THETA = 5.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	23698.	70.33	16667.
41	BITUMINOUS COAL	2644056.	6.66	176047.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	759386.	12.42	94346.
49	DISTILLATE OIL	34578.	58.22	20132.
52	NATURAL GAS	30178.	62.32	18808.
55	PROCESS GAS	94790.	35.17	33333.
58	COKE	1706.	262.12	4472.
61	WOOD	9695.	109.96	10660.
63	LIQUID PETROL GAS	24.	2209.98	530.
65	BAGASSE	0.	---	---
67	OTHER	3341.	187.31	6258.
	TOTAL	3601454.	5.70	205463.

NOX

THETA = 5.90

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	6151.	117.81	7246.

	BITUMINOUS COAL	582521.	12.11	70519.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	166784.	22.62	37733.
49	DISTILLATE OIL	103645.	28.70	29746.
52	NATURAL GAS	1483016.	7.59	112518.
55	PROCESS GAS	8295.	101.45	8415.
58	COKE	0.	---	---
61	WOOD	97072.	29.66	28787.
63	LIQUID PETROL GAS	1703.	223.89	3813.
65	BAGASSE	0.	---	---
67	OTHER	237.	600.17	1422.
	TOTAL	2449424.	5.90	144605.

HC

THETA = 20.36

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	56.	1284.72	719.
41	BITUMINOUS COAL	17106.	73.51	12574.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	8934.	101.71	9087.
49	DISTILLATE OIL	4942.	136.76	6759.
52	NATURAL GAS	170225.	23.30	39666.
55	PROCESS GAS	58.	1262.37	732.
58	COKE	0.	---	---
61	WOOD	21104.	66.18	13966.
63	LIQUID PETROL GAS	561.	405.90	2277.
65	BAGASSE	0.	---	---
67	OTHER	29.	1785.27	518.
	TOTAL	223015.	20.36	45401.

CO

THETA = 67.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	1745.	477.84	8338.
41	BITUMINOUS COAL	53929.	85.95	46354.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	605.	811.52	4910.
49	DISTILLATE OIL	329.	1100.48	3621.
52	NATURAL GAS	4634.	293.22	13588.
55	PROCESS GAS	2.	10000.00	200.
58	COKE	0.	---	---
61	WOOD	19487.	142.99	27865.
63	LIQUID PETROL GAS	1.	10000.00	100.
65	BAGASSE	0.	---	---
67	OTHER	7723.	227.14	17542.
	TOTAL	88455.	67.11	59366.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
COMM-INSTITUTIONAL FUEL
POINT SOURCES

DRIVER TABLE 26

PARTICULATES

THETA = 27.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
74	ANTHRACITE COAL	236.	538.87	1272.
77	BITUMINOUS COAL	58973.	34.09	20103.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	7730.	94.16	7278.
85	DISTILLATE OIL	743.	303.70	2256.
88	NATURAL GAS	20888.	57.29	11964.
91	WOOD	586.	341.97	2004.
93	LIQUID PETROL GAS	2.	5853.61	117.
95	OTHER	0.	---	---
	TOTAL	89158.	27.72	24718.

SOX

THETA = 25.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
74	ANTHRACITE COAL	1331.	296.76	3950.
77	BITUMINOUS COAL	86897.	36.73	31915.
79	LIGNITE	C.	---	---
82	RESIDUAL OIL	80474.	38.17	30713.
85	DISTILLATE OIL	4355.	164.06	7145.
88	NATURAL GAS	2965.	198.83	5895.
91	WOOD	49.	1546.66	758.
93	LIQUID PETROL GAS	0.	---	---
95	OTHER	0.	---	---
	TOTAL	176071.	25.80	45429.

NOX

THETA = 22.76

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
74	ANTHRACITE COAL	86.	996.32	857.
77	BITUMINOUS COAL	17330.	70.19	12163.
79	LIGNITE	C.	---	---
82	RESIDUAL OIL	20031.	65.28	13077.
85	DISTILLATE OIL	2611.	180.82	4721.
88	NATURAL GAS	124134.	26.22	32553.
91	WOOD	625.	369.58	2310.

	LIQUID PETROL GAS	10.	2921.80	292.
95	OTHER	0.	---	---
	TOTAL	164827.	22.76	37511.

HC

THETA = 89.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	2.	6798.10	136.
77	BITUMINOUS COAL	1657.	236.18	3913.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	954.	311.26	2969.
85	DISTILLATE OIL	132.	836.79	1105.
88	NATURAL GAS	8575.	103.82	8903.
91	WOOD	140.	812.53	1138.
93	LIQUID PETROL GAS	1.	9613.97	96.
95	OTHER	0.	---	---
	TOTAL	11461.	89.80	10292.

CO

THETA = 124.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	114.	1869.47	2131.
77	BITUMINOUS COAL	4882.	285.67	13947.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	84.	2177.86	1829.
85	DISTILLATE OIL	10.	6312.05	631.
88	NATURAL GAS	20585.	139.12	28638.
91	WOOD	125.	1785.32	2232.
93	LIQUID PETROL GAS	2.	10000.00	200.
95	OTHER	0.	---	---
	TOTAL	25602.	124.26	32062.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ELECTRIC GENERATION

DRIVER TABLE 27

PARTICULATES

THETA = 244.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	1043.	256.22	2672.
106	NATURAL GAS	13.	2294.98	298.
107	DIESEL	94.	853.47	802.
108	OTHER	0.	---	---
	TOTAL	1150.	244.01	2806.

SOX

THETA = 213.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	2371.	222.35	5272.
106	NATURAL GAS	0.	---	---
107	DIESEL	196.	773.33	1516.
108	OTHER	0.	---	---
	TOTAL	2567.	213.69	5485.

NOX

THETA = 76.74

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	8287.	171.49	8411.
106	NATURAL GAS	3523.	155.66	5484.
107	DIESEL	2687.	178.24	4789.
108	OTHER	0.	---	---
	TOTAL	14497.	76.74	11124.

HC

THETA = 528.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	62.	1221.00	757.
106	NATURAL GAS	0.	---	---
107	DIESEL	269.	586.18	1577.
108	OTHER	0.	---	---
	TOTAL	331.	528.44	1749.

CO

THETA = 480.46

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	92.	2081.06	1915.
106	NATURAL GAS	0.	---	---
107	DIESEL	1634.	493.80	8069.
108	OTHER	0.	---	---
	TOTAL	1726.	480.46	8293.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
INDUSTRIAL FUEL

DRIVER TABLE 28

PARTICULATES

THETA = 218.59.

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	86.	892.30	767.
112	NATURAL GAS	1285.	230.85	2966.
113	GASOLINE	9.	2758.45	248.
114	DIESEL FUEL	48.	1194.45	573.
115	OTHER	0.	---	---
	TOTAL	1428.	218.99	3127.

SOX

THETA = 122.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	408.	535.96	2187.
112	NATURAL GAS	7299.	126.72	9249.
113	GASOLINE	4.	5413.97	217.
114	DIESEL FUEL	87.	1160.66	1010.
115	OTHER	0.	---	---
	TOTAL	7798.	122.60	9560.

NOX

THETA = 10.13

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	920.	304.62	2802.
112	NATURAL GAS	828953.	10.15	84123.
113	GASOLINE	160.	712.85	1198.
114	DIESEL FUEL	1245.	261.86	3260.
115	OTHER	0.	---	---
	TOTAL	831286.	10.13	84241.

HC

THETA = 57.16

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	35.	1625.09	569.
112	NATURAL GAS	27637.	57.83	15983.
113	GASOLINE	491.	433.88	2130.
114	DIESEL FUEL	128.	849.78	1088.
115	OTHER	0.	---	---
	TOTAL	28291.	57.16	16171.

CO

THETA = 177.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	212.	1370.92	2906.
112	NATURAL GAS	10423.	195.52	20379.
113	GASOLINE	1228.	569.61	6995.
114	DIESEL FUEL	729.	739.29	5389.
115	OTHER	0.	---	---
	TOTAL	12592.	177.88	22399.

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SOURCE HIERARCHY — DRIVER TABLE 29
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
COMM-INSTITUTIONAL

PARTICULATES

THETA = 1137.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	47.	1207.51	568.
119	OTHER	6.	3379.58	203.
	TOTAL	53.	1137.11	603.

SOX

THETA = 1088.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	97.	1099.23	1066.
119	OTHER	2.	7655.59	153.
	TOTAL	99.	1088.12	1077.

NOX

THETA = 252.50

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	1328.	251.54	3367.
119	OTHER	11.	2765.82	306.
	TOTAL	1339.	252.50	3381.

HC

THETA = 806.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	133.	833.65	1109.
119	OTHER	9.	3204.71	288.
	TOTAL	142.	806.80	1146.

CO

THETA = 700.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	808.	702.22	5674.
119	OTHER	3.	10000.00	300.
	TOTAL	811.	700.92	5684.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ENGINE-TESTING

DRIVER TABLE 30

PARTICULATES

THETA = 460.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	172.	631.21	1086.
123	OTHER	151.	673.67	1017.
	TOTAL	323.	460.61	1488.

SOX

THETA = 1275.93

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	72.	1275.93	919.
123	OTHER	0.	---	---
	TOTAL	72.	1275.93	919.

NOX

THETA = 463.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	397.	463.72	1841.
123	OTHER	0.	---	---
	TOTAL	397.	463.72	1841.

HC

THETA = 495.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	377.	495.15	1867.
123	OTHER	0.	---	---
	TOTAL	377.	495.15	1867.

CO

THETA = 651.09

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	940.	651.09	6120.
123	OTHER	0.	---	---
	TOTAL	940.	651.09	6120.

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SOURCE HIERARCHY ... DRIVER TABLE 31
FUEL COMBUSTION
EXTERNAL COMBUSTION
RESIDUAL & DISTILLATE (TOTAL)

PARTICULATES

THETA = 38.08

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	12[illegible]4.	[illegible].51	9197.
16	BITUMINOUS COAL	79[illegible]92.	[illegible].44	23277.
17	DISTILLATE OIL	72[illegible]9.	[illegible].65	22348.
18	RESIDUAL OIL	[illegible]22.	[illegible].98	1422.
19	NATURAL GAS	47927.	37.81	18123.
20	WOOD	52377.	36.17	18946.
	TOTAL	2[illegible]4.	16.08	42606.

SOX

THETA = 12.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	32319.	60.23	19462.
16	BITUMINOUS COAL	307600.	19.52	60046.
17	DISTILLATE OIL	382330.	17.51	66945.
18	RESIDUAL OIL	2417.	220.22	5323.
19	NATURAL GAS	1513.	278.34	4211.
20	WOOD	1048.	334.44	3505.
	TOTAL	727227.	12.70	92327.

NOX

THETA = 18.46

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3703.	151.84	5622.
16	BITUMINOUS COAL	11859.	84.84	10062.
17	DISTILLATE OIL	87454.	31.24	27324.
18	RESIDUAL OIL	513.	407.93	2093.
19	NATURAL GAS	126125.	26.02	32813.
20	WOOD	20951.	63.83	13374.
	TOTAL	250605.	18.46	46253.

HC

THETA = 26.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3086.	173.06	5341.
16	BITUMINOUS COAL	79062.	34.19	27032.
17	DISTILLATE OIL	21864.	65.02	14216.
18	RESIDUAL OIL	38.	1559.59	593.
19	NATURAL GAS	20180.	67.68	13657.
20	WOOD	4190.	148.52	6223.
	TOTAL	128420.	26.83	34452.

CO

THETA = 26.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	111394.	59.89	66731.
16	BITUMINOUS COAL	355781.	33.46	119061.
17	DISTILLATE OIL	36439.	104.57	38103.
18	RESIDUAL OIL	3.	10000.00	300.
19	NATURAL GAS	50450.	88.87	44834.
20	WOOD	4190.	308.37	12921.
	TOTAL	557957.	26.72	149100.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
AREA SOURCES

DRIVER TABLE 32

PARTICULATES

THETA = 6.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	1350782.	7.12	96213.
45	RESIDUAL OIL	13156.	72.17	9495.
48	DISTILLATE OIL	24531.	52.85	12966.
51	NATURAL GAS	22282.	55.46	12357.
54	PROCESS GAS	6.	3379.59	203.
57	COKE	0.	---	---
60	WOOD	1460.	216.65	3163.
	TOTAL	1412217.	6.97	98376.

SOX

THETA = 9.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	903767.	11.39	102925.
45	RESIDUAL OIL	48799.	49.01	23917.
48	DISTILLATE OIL	247475.	21.76	53859.
51	NATURAL GAS	743.	397.19	2951.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	29.	2010.46	583.
	TOTAL	1200813.	9.88	118660.

NOX

THETA = 12.86

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	175953.	22.03	38757.
45	RESIDUAL OIL	52623.	40.28	21195.
48	DISTILLATE OIL	63994.	36.52	23373.
51	NATURAL GAS	222816.	19.57	43614.
54	PROCESS GAS	71.	1096.53	779.
57	COKE	0.	---	---
60	WOOD	584.	382.33	2233.
	TOTAL	516041.	12.86	66373.

HC

THETA = 37.09

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	11730.	88.77	10412.
45	RESIDUAL OIL	2631.	187.43	4931.
48	DISTILLATE OIL	3200.	169.95	5439.
51	NATURAL GAS	49515.	43.21	21393.
54	PROCESS GAS	12.	2775.31	333.
57	COKE	0.	---	---
60	WOOD	117.	888.81	1040.
	TOTAL	67205.	37.09	24923.

CO

THETA = 127.63

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	23460.	130.32	30573.
45	RESIDUAL OIL	175.	1508.87	2641.
48	DISTILLATE OIL	213.	1367.67	2913.
51	NATURAL GAS	495.	897.15	4441.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	117.	1845.34	2159.
	TOTAL	24460.	127.63	31217.

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FUEL COMBUSTION
EXTERNAL COMBUSTION
COMM-INSTITUTIONAL FUEL
AREA SOURCES

DRIVER TABLE 33

PARTICULATES

THETA = 15.79

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	504.	368.74	1858.
76	BITUMINOUS COAL	144322.	21.79	31449.
81	RESIDUAL OIL	51482.	36.48	18783.
84	DISTILLATE OIL	60861.	33.56	20422.
87	NATURAL GAS	17737.	62.16	11025.
90	WOOD	102.	819.67	836.
	TOTAL	275008.	15.79	43412.

SOX

THETA = 10.63

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	581.	449.16	2610.
76	BITUMINOUS COAL	221777.	22.99	50986.
81	RESIDUAL OIL	596181.	14.02	83596.
84	DISTILLATE OIL	217820.	23.20	50529.
87	NATURAL GAS	560.	457.51	2562.
90	WOOD	2.	7655.60	153.
	TOTAL	1036921.	10.63	110247.

NOX

THETA = 13.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	221.	621.52	1374.
76	BITUMINOUS COAL	26351.	56.92	14999.
81	RESIDUAL OIL	134300.	25.21	33860.
84	DISTILLATE OIL	243443.	18.73	45588.
87	NATURAL GAS	93352.	30.24	28230.
90	WOOD	41.	1442.97	592.
	TOTAL	497708.	13.10	65183.

HC

THETA = 53.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	4.	4806.91	192.
76	BITUMINOUS COAL	5728.	127.03	7276.
81	RESIDUAL OIL	6715.	117.32	7878.
84	DISTILLATE OIL	12172.	87.14	10607.
87	NATURAL GAS	7468.	111.25	8308.
90	WOOD	8.	3399.00	272.
	TOTAL	32095.	53.66	17223.

CO

THETA = 98.95

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	133.	1730.82	2302.
76	BITUMINOUS COAL	20623.	139.00	28665.
81	RESIDUAL OIL	448.	943.06	4225.
84	DISTILLATE OIL	811.	700.92	5684.
87	NATURAL GAS	18670.	146.09	27274.
90	WOOD	8.	7057.22	565.
	TOTAL	40693.	98.95	40266.

Weighted Sensitivity Analysis

of the

Nationwide Emissions Report

for $\epsilon = 4.47\%$

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SOURCE HIERARCHY
GRAND TOTAL

DRIVER TABLE 1

PARTICULATES

THETA = 4.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3507743.	9.88	346522.
236	POINT SOURCES	13624732.	5.01	682938.
	TOTAL	17132464.	4.47	765821.

SOX

THETA = 4.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3589057.	12.77	458419.
236	POINT SOURCES	25715088.	4.77	1227061.
	TOTAL	29304144.	4.47	1309895.

NOX

THETA = 4.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	9237179.	6.79	627621.
236	POINT SOURCES	12105130.	5.94	718477.
	TOTAL	21342304.	4.47	954001.

HC

THETA = 4.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	17684672.	5.11	903607.
236	POINT SOURCES	5422538.	9.23	500360.
	TOTAL	23107200.	4.47	1032892.

CO

THETA = 4.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	74560606.	5.17	3852222.
236	POINT SOURCES	25048400.	8.91	2232784.
	TOTAL	99609008.	4.47	4452521.

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SOURCE HIERARCHY
POINT SOURCES

DRIVER TABLE 2

PARTICULATES

THETA = 5.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	5073194.	8.21	416733.
145	INDUSTRIAL PROCESS (POINT)	8410250.	6.38	536564.
190	SOLID WASTE DISPOSAL	141280.	49.22	69544.
231	OTHER (POINT)	8.	6541.42	523.
	TOTAL	13624732.	5.01	682938.

SOX

THETA = 4.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	19105568.	5.54	1057673.
145	INDUSTRIAL PROCESS (POINT)	6580464.	9.43	620726.
190	SOLID WASTE DISPOSAL	29049.	141.97	41242.
231	OTHER (POINT)	0.	---	---
	TOTAL	25715072.	4.77	1227060.

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1/2

NOX

THETA = 5.94

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	8827916.	6.95	613560.
145	INDUSTRIAL PROCESS (POINT)	3252095.	11.45	372400.
190	SOLID WASTE DISPOSAL	25119.	130.29	32729.
231	OTHER (POINT)	0.	---	---
	TOTAL	12105130.	5.94	718477.

HC

THETA = 9.23

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	385365.	34.61	133388.
145	INDUSTRIAL PROCESS (POINT)	4883692.	9.72	474849.
190	SOLID WASTE DISPOSAL	153482.	54.85	84180.
231	OTHER (POINT)	0.	---	---
	TOTAL	5422539.	9.23	500360.

THETA = 0.51

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	6182023.	17.94	1109230.
145	INDUSTRIAL PROCESS (POINT)	18012720.	10.51	1893416.
190	SOLID WASTE DISPOSAL	853650.	48.29	412189.
231	OTHER (POINT)	0.	---	---
	TOTAL	25048384.	8.91	2232782.

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SOURCE HIERARCHY
AREA SOURCES

DRIVER TABLE 3

PARTICULATES

THETA = 9.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1952109.	13.24	258505.
189	SOLID WASTE DISPOSAL	617275.	23.55	145364.
216	TRANSPORTATION (AREA)	710361.	21.63	156785.
230	MISCELLANEOUS (AREA)	220278.	39.42	86837.
	TOTAL	3507743.	9.88	346522.

SOX

THETA = 12.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	2964961.	14.05	416660.
189	SOLID WASTE DISPOSAL	41595.	118.65	49351.
216	TRANSPORTATION (AREA)	582501.	31.70	184680.
230	MISCELLANEOUS (AREA)	0.	---	---
	TOTAL	3589057.	12.77	458419.

NOX

THETA = 6.79

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1264356.	18.37	232200.
189	SOLID WASTE DISPOSAL	132713.	56.69	75229.
216	TRANSPORTATION (AREA)	7814495.	7.39	577258.
230	MISCELLANEOUS (AREA)	25915.	128.28	33243.
	TOTAL	9237179.	6.79	627621.

HC

THETA = 5.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	227722.	45.03	102538.
189	SOLID WASTE DISPOSAL	1296233.	18.87	244637.
216	TRANSPORTATION (AREA)	14517727.	5.64	818710.
230	MISCELLANEOUS (AREA)	1643005.	16.76	275423.
	TOTAL	17684672.	5.11	903607.

CO

THETA = 5.17

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	623111.	56.52	352159.
189	SOLID WASTE DISPOSAL	3466887.	23.97	830402.
216	TRANSPORTATION (AREA)	69695360.	5.34	3724418.
230	MISCELLANEOUS (AREA)	777451.	50.60	393363.
	TOTAL	74560592.	5.17	3852221.

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SOURCE HIERARCHY — DRIVER TABLE 4
FUEL COMBUSTION
POINT SOURCES

PARTICULATES

THETA = 8.21

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	5070238.	8.22	416611.
126	INTERNAL COMBUSTION (POINT)	2956.	340.30	10059.
	TOTAL	5073194.	8.21	416733.

SOX

THETA = 5.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	19095024.	5.54	1057381.
126	INTERNAL COMBUSTION (POINT)	10537.	235.73	24839.
	TOTAL	19105557.	5.54	1057673.

NOX

THETA = 6.95

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	7980397.	7.31	583364.
126	INTERNAL COMBUSTION (POINT)	647519.	22.43	190109.
	TOTAL	8827916.	6.95	613560.

HC

THETA = 34.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	356005.	36.01	128206.
126	INTERNAL COMBUSTION (POINT)	29360.	125.40	36818.
	TOTAL	385365.	34.61	133388.

CO

THETA = 17.94

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	6165954.	17.97	1107787.
126	INTERNAL COMBUSTION (POINT)	16069.	351.93	56552.
	TOTAL	6182023.	17.94	1109230.

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SOURCE HIERARCHY
INDUSTRIAL PROCESS (POINT)

DRIVER TABLE 5

PARTICULATES

THETA = 6.38

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	194243.	41.98	81544.
133	FOOD/AGRICULTURAL	215492.	39.86	85888.
134	PRIMARY METAL	1476560.	15.23	224824.
135	SECONDARY METALS	144426.	48.68	70314.
136	MINERAL PRODUCTS	4589503.	8.64	396369.
137	PETROLEUM INDUSTRY	1432023.	15.46	221407.
138	WOOD PRODUCTS	323630.	32.52	105255.
139	EVAPORATION	881.	623.35	5492.
140	METAL FABRICATION	4035.	291.27	11753.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	501.	826.61	4141.
143	INPROCESS FUEL	20592.	128.93	26550.
144	OTHER/NOT CLASSIFIED	8364.	202.31	16921.
	TOTAL	8410250.	6.38	536564.

SOX

THETA = 9.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	431773.	36.83	159001.
133	FOOD/AGRICULTURAL	912.	801.26	7308.
134	PRIMARY METAL	3792555.	12.43	471235.
135	SECONDARY METALS	89538.	80.87	72406.
136	MINERAL PRODUCTS	305369.	43.79	133716.
137	PETROLEUM INDUSTRY	1832762.	17.87	327585.
138	WOOD PRODUCTS	81283.	84.87	68988.
139	EVAPORATION	2545.	479.65	12207.
140	METAL FABRICATION	2266.	508.33	11519.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	40.	3825.97	1530.
143	INPROCESS FUEL	30513.	138.53	42268.
144	OTHER/NOT CLASSIFIED	10908.	231.69	25272.
	TOTAL	6580464.	9.43	620726.

NOX

THETA = 11.45

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	91649.	68.21	62516.
133	FOOD/AGRICULTURAL	2989.	377.72	11290.

13	PRIMARY METAL	15060.	168.27	25342.
135	SECONDARY METALS	1776.	490.01	8703.
136	MINERAL PRODUCTS	99161.	65.58	65028.
137	PETROLEUM INDUSTRY	3020727.	11.88	358908.
138	WOOD PRODUCTS	2230.	437.30	9752.
139	EVAPORATION	545.	884.56	4821.
140	METAL FABRICATION	905.	686.44	6212.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	16618.	160.19	26621.
144	OTHER/NOT CLASSIFIED	433.	992.39	4297.
	TOTAL	3252093.	11.45	372400.

HC

THETA = 9.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	2151455.	14.65	315172.
133	FOOD/AGRICULTURAL	22255.	144.03	32055.
134	PRIMARY METAL	111779.	64.27	71839.
135	SECONDARY METALS	2264.	451.59	10224.
136	MINERAL PRODUCTS	7559.	247.14	18682.
137	PETROLEUM INDUSTRY	865146.	23.10	199860.
138	WOOD PRODUCTS	12764.	190.19	24276.
139	EVAPORATION	1598193.	17.00	271641.
140	METAL FABRICATION	1002.	678.81	6802.
141	LEATHER PRODUCTS	360.	1102.27	4189.
142	TEXTILE MANUFACTURING	4778.	310.85	14853.
143	INPROCESS FUEL	12479.	192.35	24003.
144	OTHER/NOT CLASSIFIED	93637.	70.22	65751.
	TOTAL	4883691.	9.72	474849.

CO

THETA = 10.51

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	5799304.	18.53	1074363.
133	FOOD/AGRICULTURAL	548.	1905.75	10444.
134	PRIMARY METAL	2980138.	25.84	770148.
135	SECONDARY METALS	1393596.	37.79	526652.
136	MINERAL PRODUCTS	18723.	326.04	61044.
137	PETROLEUM INDUSTRY	7256689.	16.56	1201614.
138	WOOD PRODUCTS	527647.	61.42	324061.
139	EVAPORATION	2110.	971.21	20493.
140	METAL FABRICATION	38.	7237.09	2750.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	4881.	638.56	31168.
144	OTHER/NOT CLASSIFIED	30860.	253.96	78371.
	TOTAL	18012672.	10.51	1893411.

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DRIVER TABLE 6

SOURCE HIERARCHY
SOLID WASTE DISPOSAL
POINT SOURCES

PARTICULATES

THETA = 49.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60658.	75.12	45568.
170	COMMERCIAL-INSTITUTIONAL	3527.	311.54	10988.
186	INDUSTRIAL	77089.	66.64	51371.
187	OTHER (POINT)	7.	6993.09	490.
	TOTAL	141281.	49.22	69544.

SOX

THETA = 141.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	6920.	290.88	20129.
170	COMMERCIAL-INSTITUTIONAL	779.	866.97	6754.
186	INDUSTRIAL	21350.	165.60	35357.
187	OTHER (POINT)	0.	---	---
	TOTAL	29049.	141.97	41242.

NOX

THETA = 130.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	13771.	175.97	24233.
170	COMMERCIAL-INSTITUTIONAL	786.	736.57	5789.
186	INDUSTRIAL	10562.	200.93	21223.
187	OTHER (POINT)	0.	---	---
	TOTAL	25119.	130.29	32729.

HC

THETA = 54.85

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60731.	87.19	52952.
170	COMMERCIAL-INSTITUTIONAL	2166.	461.69	10000.
186	INDUSTRIAL	90584.	71.39	64670.
187	OTHER (POINT)	0.	---	---
	TOTAL	153481.	54.85	84180.

CO

THETA = 48.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	201869.	99.29	200443.
170	COMMERCIAL-INSTITUTIONAL	15138.	362.60	54890.
186	INDUSTRIAL	636643.	55.91	355963.
187	OTHER (POINT)	0.	---	---
	TOTAL	853650.	48.29	412189.

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DRIVER TABLE 7

SOURCE HIERARCHY
FUEL COMBUSTION
AREA SOURCES

PARTICULATES

THETA = 13.24

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1952109.	13.24	258505.
	TOTAL	1952109.	13.24	258505.

SOX

THETA = 14.05

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	2964961.	14.05	416660.
	TOTAL	2964961.	14.05	416660.

NOX

THETA = 18.37

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1264356.	18.37	232200.
	TOTAL	1264356.	18.37	232200.

HC

THETA = 45.03

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	227722.	45.03	102538.
	TOTAL	227722.	45.03	102538.

CO

THETA = 56.52

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	623111.	56.52	352159.
	TOTAL	623111.	56.52	352159.

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SOURCE HIERARCHY
SIC 10 WASTE DISPOSAL
AREA SOURCES

DRIVER TABLE 8

PARTICULATES

THETA = 23.55

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	294329.	34.10	100376.
169	COMMERCIAL-INSTITUTIONAL	70563.	69.68	49127.
185	INDUSTRIAL	252647.	36.82	92961.
	TOTAL	617279.	23.55	145364.

SOX

THETA = 118.65

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	10172.	239.92	24405.
169	COMMERCIAL-INSTITUTIONAL	6403.	302.49	19363.
185	INDUSTRIAL	25020.	152.98	38275.
	TOTAL	41595.	118.65	49351.

NOX

THETA = 56.69

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	49070.	93.22	45744.
169	COMMERCIAL-INSTITUTIONAL	19783.	146.82	29045.
185	INDUSTRIAL	63860.	81.72	52185.
	TOTAL	132713.	56.69	75229.

HC

THETA = 18.87

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	842238.	23.41	197196.
169	COMMERCIAL-INSTITUTIONAL	108552.	65.22	70795.
185	INDUSTRIAL	345443.	36.56	126290.
	TOTAL	1296233.	18.87	244637.

CO

THETA = 23.97

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
156	RESIDENTIAL (AREA)	2404628.	28.77	691799.
169	COMMERCIAL-INSTITUTIONAL	258068.	87.82	226633.
185	INDUSTRIAL	801991.	49.82	399522.
	TOTAL	3464687.	23.97	830402.

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SOURCE CATEGORY
TRANSPORTATION (TOTAL)

DRIVER TABLE 9

PARTICULATES

THETA = 21.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	377291.	30.12	113639.
203	DIESEL	107951.	56.33	60776.
208	AIRCRAFT	211138.	40.27	85016.
214	VESSELS	21799.	125.31	27317.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	718081.	21.83	156785.

SOX

THETA = 31.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	226643.	50.83	115197.
203	DIESEL	248312.	48.56	120579.
208	AIRCRAFT	42071.	117.97	49632.
214	VESSELS	65474.	94.57	61916.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	582500.	31.73	184680.

NOX

THETA = 7.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	5889274.	8.51	501140.
203	DIESEL	1736867.	15.67	272152.
208	AIRCRAFT	113021.	61.43	69424.
214	VESSELS	75033.	75.39	56566.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	7814195.	7.39	577258.

HC

THETA = 5.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	12742645.	6.02	767027.
203	DIESEL	262421.	41.95	110073.
208	AIRCRAFT	513031.	30.00	153905.
214	VESSELS	86250.	73.16	63104.
215	GAS HANDLING EVAP LOSS	913379.	22.48	205355.
	TOTAL	14517726.	5.64	818710.

CO

THETA = 5.34

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	67359072.	5.44	3661460.
203	DIESEL	1064489.	42.84	464589.
208	AIRCRAFT	896217.	47.12	422341.
214	VESSELS	355473.	74.82	266024.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	69695320.	5.34	3724417.

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SOURCE HIERARCHY
MISCELLANEOUS (AREA)

DRIVER TABLE 10

PARTICULATES

THETA = 39.42

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	220276.	39.42	86836.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	220278.	39.42	86837.

SOX

THETA = 0.0

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	0.	---	---
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	0.	0.0	0.

NOX

THETA = 128.28

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	25915.	128.28	33243.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---

22	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	25915.	128.28	33243.

HC

THETA = 16.76

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	259150.	42.21	109385.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	1383855.	18.27	252770.
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	1643005.	16.76	275423.

CO

THETA = 50.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	777451.	50.60	393362.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	777451.	50.60	393363.

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SOURCE HIERARCHY — DRIVER TABLE 11
EXTERNAL COMBUSTION
POINT SOURCES

PARTICULATES

THETA = 8.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	3416197.	10.01	341970.
70	INDUSTRIAL FUEL	1562142.	14.87	231248.
98	COMM-INSTITUTIONAL FUEL	89150.	61.96	55246.
99	OTHER (POINT)	2741.	353.40	9687.
	TOTAL	5070238.	8.22	416611.

SOX

THETA = 5.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	15317302.	6.18	947028.
70	INDUSTRIAL FUEL	3601694.	12.73	439209.
98	COMM-INSTITUTIONAL FUEL	176071.	57.67	101535.
99	OTHER (POINT)	211.	1665.83	3515.
	TOTAL	19095024.	5.54	1037381.

NOX

THETA = 7.31

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	5365098.	8.91	478354.
70	INDUSTRIAL FUEL	2449426.	13.19	323192.
98	COMM-INSTITUTIONAL FUEL	164827.	50.84	83838.
99	OTHER (POINT)	246.	1316.92	3239.
	TOTAL	7980397.	7.31	583364.

HC

THETA = 36.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	121528.	61.64	74906.
70	INDUSTRIAL FUEL	223016.	45.57	101673.
98	COMM-INSTITUTIONAL FUEL	11461.	200.71	23003.
99	OTHER (POINT)	0.	---	---
	TOTAL	356005.	36.01	128206.

CO

THETA = 17.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	6051697.	18.14	1097475.
70	INDUSTRIAL FUEL	88455.	150.00	132684.
98	COMM-INSTITUTIONAL FUEL	25803.	277.73	71662.
99	OTHER (POINT)	0.	---	---
	TOTAL	6165955.	17.97	1107787.

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SOURCE HIERARCHY — DRIVER TABLE 12
INTERNAL COMBUSTION (POINT)

PARTICULATES

THETA = 340.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1151.	545.35	6277.
116	INDUSTRIAL FUEL	1429.	489.44	6994.
120	COMM-INSTITUTIONAL	53.	2541.43	1347.
124	ENGINE-TESTING	323.	1029.47	3325.
125	OTHER (POINT)	0.	---	---
	TOTAL	2956.	340.30	10059.

SOX

THETA = 235.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	2567.	477.59	12260.
116	INDUSTRIAL FUEL	7799.	274.00	21369.
120	COMM-INSTITUTIONAL	99.	2431.95	2408.
124	ENGINE-TESTING	72.	2851.71	2053.
125	OTHER (POINT)	0.	---	---
	TOTAL	10537.	235.73	24839.

NOX

THETA = 22.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	14498.	171.50	24865.
116	INDUSTRIAL FUEL	831285.	22.65	188279.
120	COMM-INSTITUTIONAL	1539.	566.34	7550.
124	ENGINE-TESTING	397.	1036.41	4115.
125	OTHER (POINT)	0.	---	---
	TOTAL	847519.	22.43	190109.

HC

THETA = 125.40

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	331.	1181.07	3909.
116	INDUSTRIAL FUEL	28291.	127.75	36142.
120	COMM-INSTITUTIONAL	142.	1803.20	2561.
124	ENGINE-TESTING	377.	1106.67	4172.
125	OTHER (POINT)	220.	1448.70	3187.
	TOTAL	29361.	125.40	36819.

CO

THETA = 351.93

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1726.	1073.83	18534.
116	INDUSTRIAL FUEL	12592.	397.57	50061.
120	COMM-INSTITUTIONAL	811.	1566.56	12709.
124	ENGINE-TESTING	940.	1455.10	13678.
125	OTHER (POINT)	0.	---	---
	TOTAL	16069.	351.93	56552.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
GOVERNMENT (POINT)

DRIVER TABLE 13

PARTICULATES

THETA = 75.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	34619.	99.44	34425.
150	OPEN BURNING	26039.	114.69	29858.
151	OTHER	0.	---	---
	TOTAL	60658.	75.12	45568.

SOX

THETA = 290.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	5323.	331.66	17654.
150	OPEN BURNING	1597.	605.51	9670.
151	OTHER	0.	---	---
	TOTAL	6920.	290.88	20129.

NOX

THETA = 175.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	4268.	316.09	13491.
150	OPEN BURNING	9503.	211.83	20131.
151	OTHER	0.	---	---
	TOTAL	13771.	175.97	24233.

HC

THETA = 87.19

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	12453.	192.55	23978.
150	OPEN BURNING	48278.	97.79	47212.
151	OTHER	0.	---	---
	TOTAL	60731.	87.19	52952.

CO

THETA = 99.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	64403.	175.79	113217.
150	OPEN BURNING	137467.	120.33	165408.
151	OTHER	0.	---	---
	TOTAL	201870.	99.29	200444.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
POINT SOURCES

DRIVER TABLE 14

PARTICULATES

THETA = 311.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1263.	520.54	6574.
163	OPEN BURNING	1159.	543.39	6298.
165	APARTMENT	1104.	556.77	6147.
167	OTHER	0.	---	---
	TOTAL	3526.	311.54	10985.

SOX

THETA = 866.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	761.	877.72	6679.
163	OPEN BURNING	0.	---	---
165	APARTMENT	19.	5556.86	1055.
167	OTHER	0.	---	---
	TOTAL	780.	866.97	6762.

NOX

THETA = 736.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	534.	893.63	4772.
163	OPEN BURNING	136.	1770.75	2408.
165	APARTMENT	116.	1917.34	2224.
167	OTHER	0.	---	---
	TOTAL	786.	736.57	5789.

HC

THETA = 461.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1341.	586.77	7869.
163	OPEN BURNING	273.	1300.46	3550.
165	APARTMENT	552.	914.56	5048.
167	OTHER	0.	---	---
	TOTAL	2166.	461.69	10000.

CO

THETA = 362.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	10989.	425.58	46767.
163	OPEN BURNING	3409.	764.09	26048.
165	APARTMENT	740.	1639.99	12136.
167	OTHER	0.	---	---
	TOTAL	15136.	362.60	54890.

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SOURCE HIERARCHY — DRIVER TABLE 15
SOLID WASTE DISPOSAL
INDUSTRIAL
POINT SOURCES

PARTICULATES

THETA = 66.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	62791.	73.84	46363.
177	OPEN BURNING	14246.	155.01	22083.
179	AUTO BODY INCINERATION	14.	4944.80	692.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	38.	3001.42	1141.
	TOTAL	77089.	66.64	51371.

SOX

THETA = 165.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	17945.	180.63	32415.
177	OPEN BURNING	255.	1515.31	3864.
179	AUTO BODY INCINERATION	0.	---	---
181	RAIL CAR BURNING	0.	---	---
183	OTHER	3150.	431.14	13581.
	TOTAL	21350.	165.60	35357.

NOX

THETA = 200.93

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	7788.	234.01	18225.
177	OPEN BURNING	2766.	392.67	10861.
179	AUTO BODY INCINERATION	1.	10000.00	100.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	8.	7301.35	584.
	TOTAL	10563.	200.93	21225.

HC

THETA = 71.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	55589.	91.13	50661.
177	OPEN BURNING	34913.	115.00	40149.
179	AUTO BODY INCINERATION	3.	10000.00	300.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	79.	2417.50	1910.
	TOTAL	90584.	71.39	64670.

CO

THETA = 55.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	587646.	58.20	341990.
177	OPEN BURNING	48957.	201.63	98710.
179	AUTO BODY INCINERATION	17.	10000.00	1700.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	22.	9511.41	2093.
	TOTAL	636642.	55.91	355962.

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SOURCE HIERARCHY — DRIVER TABLE 16
EXTERNAL COMBUSTION
AREA SOURCES

PARTICULATES

THETA = 13.24

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	264885.	35.95	95224.
69	INDUSTRIAL FUEL	1412216.	15.57	219871.
97	COMM-INSTITUTIONAL FUEL	275008.	35.20	97026.
	TOTAL	1952109.	13.24	258505.

SOX

THETA = 14.05

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	727227.	28.33	206351.
69	INDUSTRIAL FUEL	1200813.	22.03	265161.
97	COMM-INSTITUTIONAL FUEL	1036922.	23.76	246402.
	TOTAL	2964962.	14.05	416660.

NOX

THETA = 18.37

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	250606.	41.25	103377.
69	INDUSTRIAL FUEL	516042.	28.75	148344.
97	COMM-INSTITUTIONAL FUEL	497708.	29.27	145685.
	TOTAL	1264356.	18.37	232200.

HC

THETA = 45.03

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	128421.	59.95	77001.
69	INDUSTRIAL FUEL	67205.	82.89	55703.
97	COMM-INSTITUTIONAL FUEL	32096.	119.94	38495.
	TOTAL	227722.	45.03	102538.

CO

THETA = 56.52

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	557457.	59.72	333240.
69	INDUSTRIAL FUEL	24461.	285.25	69774.
97	COMM-INSTITUTIONAL FUEL	40693.	221.15	89995.
	TOTAL	623111.	56.52	352159.

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SOURCE HIERARCHY — DRIVER TABLE 17
SOLID WASTE DISPOSAL
RESIDENTIAL (AREA)

PARTICULATES

THETA = 34.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	179419.	43.68	78370.
155	OPEN BURNING	114906.	54.58	62717.
	TOTAL	294325.	34.10	100376.

SOX

THETA = 239.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	2990.	442.52	13231.
155	OPEN BURNING	7182.	285.53	20507.
	TOTAL	10172.	239.92	24405.

NOX

THETA = 93.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	5981.	267.02	15971.
155	OPEN BURNING	43090.	99.48	42867.
	TOTAL	49071.	93.22	45745.

HC

THETA = 23.41

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	598064.	27.78	166171.
155	OPEN BURNING	244176.	43.48	106177.
	TOTAL	842238.	23.41	197196.

CO

THETA = 28.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	1794192.	33.31	597572.
155	OPEN BURNING	610436.	57.10	348559.
	TOTAL	2404628.	28.77	691799.

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DRIVER TABLE II

SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
AREA SOURCES

PARTICULATES

THETA = 69.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	3144.	103.51	33071.
162	OPEN BURNING	38554.	94.23	36329.
	TOTAL	70503.	69.68	49127.

SOX

THETA = 302.40

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	3994.	382.91	15294.
162	OPEN BURNING	2410.	492.94	11880.
	TOTAL	6404.	302.40	19366.

NOX

THETA = 146.82

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	5325.	282.99	15069.
162	OPEN BURNING	14458.	171.74	24830.
	TOTAL	19783.	146.82	29045.

HC

THETA = 65.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	26624.	131.69	35060.
162	OPEN BURNING	81928.	75.07	61503.
	TOTAL	108552.	65.22	70795.

CO

THETA = 87.82

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	53248.	193.33	102946.
162	OPEN BURNING	204820.	98.58	201903.
	TOTAL	258068.	87.82	226633.

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SOURCE HIERARCHY — DRIVER TABLE 19
SOLID WASTE DISPOSAL
INDUSTRIAL
AREA SOURCES

PARTICULATES

THETA = 36.82

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	147877.	48.11	71149.
176	OPEN BURNING	104570.	57.22	59830.
	TOTAL	252447.	36.82	92961.

SOX

THETA = 152.98

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	18485.	177.98	32900.
176	OPEN BURNING	6536.	299.31	19563.
	TOTAL	25021.	152.98	38277.

NOX

THETA = 81.72

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	24646.	131.54	32419.
176	OPEN BURNING	39214.	104.28	40893.
	TOTAL	63860.	81.72	52185.

HC

THETA = 36.56

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	123230.	61.21	75429.
176	OPEN BURNING	222212.	45.58	101289.
	TOTAL	345442.	36.56	126290.

CO

THETA = 49.82

DATA NO.	SOURCE CLASSES	TONS / YR	PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	246461.	89.86	221478.
176	OPEN BURNING	555530.	59.86	332514.
	TOTAL	801991.	49.82	399522.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
LAND VEHICLES
GASOLINE

DRIVER TABLE 2C

PARTICULATES

THETA = 30.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	344770.	31.51	108638.
196	HEAVY VEHICLES	20573.	129.99	26538.
197	OFF HIGHWAY	11900.	169.61	20183.
	TOTAL	377243.	30.12	113639.

SOX

THETA = 50.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	206862.	53.20	110055.
196	HEAVY VEHICLES	12344.	217.79	26884.
197	OFF HIGHWAY	7437.	280.59	20867.
	TOTAL	226643.	50.83	115197.

NOX

THETA = 8.51

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	4941699.	9.29	459056.
196	HEAVY VEHICLES	685779.	24.94	171009.
197	OFF HIGHWAY	261797.	40.36	105660.
	TOTAL	5869275.	8.51	501140.

HC

THETA = 6.02

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	10522689.	6.62	697025.
196	HEAVY VEHICLES	1397178.	18.18	253984.
197	OFF HIGHWAY	822577.	23.69	194881.
	TOTAL	12742644.	6.02	767027.

CO

THETA = 5.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	57097616.	5.90	3371050.
196	HEAVY VEHICLES	9754393.	18.60	1870177.
197	OFF HIGHWAY	4507067.	21.01	947116.
	TOTAL	67359056.	5.44	3661459.

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DRIVER TABLE 21

SOURCE HIERARCHY
TRANSPORTATION (AREA)
LAND VEHICLES
DIESEL

PARTICULATES

THETA = 56.33

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	40210.	92.27	37101.
201	OFF HIGHWAY	15494.	148.64	23030.
202	RAIL	52147.	80.93	42271.
	TOTAL	107901.	56.33	60776.

SOX

THETA = 48.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	80421.	85.33	68621.
201	OFF HIGHWAY	32180.	134.89	43408.
202	RAIL	135712.	65.68	89142.
	TOTAL	248313.	48.56	120579.

NOX

THETA = 15.67

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	1139242.	19.35	220417.
201	OFF HIGHWAY	440934.	31.10	137132.
202	RAIL	156591.	52.18	81717.
	TOTAL	1736867.	15.67	272152.

HC

THETA = 41.95

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	113929.	63.66	72527.
201	OFF HIGHWAY	44098.	102.32	45122.
202	RAIL	104394.	66.50	69425.
	TOTAL	262421.	41.95	110073.

CO

THETA = 42.84

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	670172.	54.50	365219.
201	OFF HIGHWAY	269166.	86.15	231925.
202	RAIL	146151.	116.70	170542.
	TOTAL	1084489.	42.84	464589.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
AIRCRAFT

DRIVER TABLE 22

PARTICULATES

THETA = 40.27

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	147475.	48.16	71052.
206	CIVIL	8438.	201.42	16996.
207	COMMERCIAL	55226.	78.73	43480.
	TOTAL	211139.	40.27	85016.

SOX

THETA = 117.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	28161.	144.20	40607.
206	CIVIL	1476.	591.07	9906.
207	COMMERCIAL	12235.	218.76	26766.
	TOTAL	42072.	117.97	49633.

NOX

THETA = 61.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	70847.	77.58	54965.
206	CIVIL	7622.	236.53	18029.
207	COMMERCIAL	34551.	111.10	38385.
	TOTAL	113020.	61.43	69423.

HC

THETA = 30.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	343120.	36.68	125865.
206	CIVIL	37369.	111.15	41537.
207	COMMERCIAL	132542.	59.02	78227.
	TOTAL	513031.	30.00	153905.

CO

THETA = 47.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	368317.	73.51	270749.
206	CIVIL	213938.	96.54	206155.
207	COMMERCIAL	314362.	79.57	250133.
	TOTAL	896217.	47.12	422341.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
VESSELS

DRIVER TABLE 22

PARTICULATES

THETA = 125.31

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	519.56	6601.
211	DIESEL FUEL	13667.	158.26	21630.
212	RESIDUAL OIL	6036.	238.19	14374.
213	GASOLINE	823.	644.94	5308.
	TOTAL	21799.	125.31	27317.

SOX

THETA = 94.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	3183.	428.90	13652.
211	DIESEL FUEL	35535.	128.36	45614.
212	RESIDUAL OIL	26242.	149.37	39199.
213	GASOLINE	514.	1067.31	5486.
	TOTAL	65474.	94.57	61916.

NOX

THETA = 75.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	191.	1494.21	2854.
211	DIESEL FUEL	41002.	101.98	41815.
212	RESIDUAL OIL	15745.	164.57	25912.
213	GASOLINE	18095.	153.51	27778.
	TOTAL	75033.	75.39	56564.

HC

THETA = 73.16

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	602.74	7666.
211	DIESEL FUEL	27334.	129.97	35525.
212	RESIDUAL OIL	787.	765.94	6028.
213	GASOLINE	56856.	90.11	51235.
	TOTAL	86250.	73.16	63104.

CO

THETA = 74.82

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	5729.	589.41	33767.
211	DIESEL FUEL	38268.	228.05	87272.
212	RESIDUAL OIL	52.	6136.63	3217.
213	GASOLINE	311523.	79.93	249001.
	TOTAL	355572.	74.82	266023.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
ELEC GENERATION (POINT)

DRIVER TABLE 24

PARTICULATES

THETA = 10.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	19246.	133.37	25668.
24	BITUMINOUS COAL	3314900.	10.16	336862.
25	LIGNITE	27872.	110.82	30889.
26	RESIDUAL OIL	27500.	111.57	30682.
27	DISTILLATE OIL	3519.	311.89	10976.
28	NATURAL GAS	20348.	129.70	26392.
29	PROCESS GAS	46.	2727.96	1255.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	240.	1194.29	2866.
33	OTHER	2527.	368.06	9301.
	TOTAL	3416198.	10.01	341970.

SOX

THETA = 6.18

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	47636.	110.87	52813.
24	BITUMINOUS COAL	13997368.	6.47	905304.
25	LIGNITE	58696.	99.71	58524.
26	RESIDUAL OIL	1168726.	22.38	261594.
27	DISTILLATE OIL	21026.	166.83	35087.
28	NATURAL GAS	11410.	226.53	25847.
29	PROCESS GAS	10160.	240.06	24390.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	0.	---	---
33	OTHER	2080.	530.57	11036.
	TOTAL	15317302.	6.18	947028.

NOX

THETA = 8.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	12831.	182.30	23391.
24	BITUMINOUS COAL	3437502.	11.14	382873.
25	LIGNITE	757295.	23.73	179705.
26	RESIDUAL OIL	531873.	28.32	150602.

	DISTILLATE OIL	19392.	148.29	28757.
28	NATURAL GAS	603619.	26.58	160439.
29	PROCESS GAS	3105.	370.59	11507.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	200.	1460.20	2920.
33	OTHER	0.	---	---
	TOTAL	5365897.	8.91	478353.

HC

THETA = 61.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
23	ANTHRACITE COAL	152.	1742.85	2649.
24	BITUMINOUS COAL	47146.	98.96	46656.
25	LIGNITE	0.	---	---
26	RESIDUAL OIL	10734.	207.40	22262.
27	DISTILLATE OIL	389.	1089.45	4238.
28	NATURAL GAS	62955.	85.64	53913.
29	PROCESS GAS	102.	2127.55	2170.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	50.	3038.76	1519.
33	OTHER	0.	---	---
	TOTAL	121528.	61.64	74906.

CO

THETA = 18.14

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
23	ANTHRACITE COAL	3417.	763.19	26073.
24	BITUMINOUS COAL	151896.	114.47	173872.
25	LIGNITE	5895000.	18.37	1083173.
26	RESIDUAL OIL	215.	3042.55	6541.
27	DISTILLATE OIL	7.	10000.00	700.
28	NATURAL GAS	1123.	1331.27	14950.
29	PROCESS GAS	0.	---	---
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	40.	7053.85	2822.
33	OTHER	0.	---	---
	TOTAL	6051694.	18.14	1097475.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
POINT SOURCES

DRIVER TABLE 25

PARTICULATES

THETA = 14.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	10088.	184.21	18583.
41	BITUMINOUS COAL	1233810.	16.66	205514.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	54042.	79.59	43011.
49	DISTILLATE OIL	23899.	119.68	28603.
52	NATURAL GAS	75866.	67.17	50961.
55	PROCESS GAS	10885.	177.34	19303.
58	COKE	1143.	547.26	6255.
61	WOOD	147086.	48.24	70958.
63	LIQUID PETROL GAS	256.	1156.37	2960.
65	BAGASSE	0.	---	---
67	OTHER	5066.	259.95	13169.
	TOTAL	1562141.	14.80	231247.

SOX

THETA = 12.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	23698.	157.19	37250.
41	BITUMINOUS COAL	2644058.	14.88	393466.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	759386.	27.77	210864.
49	DISTILLATE OIL	34578.	130.13	44996.
52	NATURAL GAS	30178.	139.29	42036.
55	PROCESS GAS	94790.	78.59	74499.
58	COKE	1706.	585.84	9994.
61	WOOD	9695.	245.75	23826.
63	LIQUID PETROL GAS	24.	4939.30	1185.
65	BAGASSE	0.	---	---
67	OTHER	3341.	418.63	13987.
	TOTAL	3601454.	12.75	459209.

NOX

THETA = 13.19

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	6151.	263.30	16196.

	BITUMINOUS COAL	582521.	27.06	157610.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	166784.	50.57	84334.
49	DISTILLATE OIL	103645.	64.14	66482.
52	NATURAL GAS	1483016.	16.96	251478.
55	PROCESS GAS	8295.	226.74	18808.
58	COKE	0.	---	---
61	WOOD	97072.	66.28	64339.
63	LIQUID PETROL GAS	1703.	500.40	8522.
65	BAGASSE	0.	---	---
67	OTHER	237.	1341.39	3179.
	TOTAL	2449424.	13.19	323191.

HC

THETA = 45.50

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	56.	2871.35	1608.
41	BITUMINOUS COAL	17106.	164.29	28103.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	8934.	227.33	20310.
49	DISTILLATE OIL	4942.	305.65	15105.
52	NATURAL GAS	170225.	52.08	38653.
55	PROCESS GAS	58.	2821.41	1636.
58	COKE	0.	---	---
61	WOOD	21104.	147.91	31215.
63	LIQUID PETROL GAS	561.	907.19	5089.
65	BAGASSE	0.	---	---
67	OTHER	29.	3990.07	1157.
	TOTAL	223015.	45.50	101472.

CO

THETA = 150.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	1745.	1067.97	18636.
41	BITUMINOUS COAL	53929.	192.11	103602.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	605.	1813.76	10973.
49	DISTILLATE OIL	329.	2459.57	8092.
52	NATURAL GAS	4634.	655.36	30369.
55	PROCESS GAS	2.	10000.00	200.
58	COKE	0.	---	---
61	WOOD	19487.	319.58	62277.
63	LIQUID PETROL GAS	1.	10000.00	100.
65	BAGASSE	0.	---	---
67	OTHER	7723.	507.65	39206.
	TOTAL	88455.	150.00	132684.

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DRIVER TABLE 26

SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
COMM-INSTITUTIONAL FUEL
POINT SOURCES

PARTICULATES

THETA = 61.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	236.	1204.37	2842.
77	BITUMINOUS COAL	58973.	76.19	44931.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	7730.	210.44	16267.
85	DISTILLATE OIL	743.	678.77	5043.
88	NATURAL GAS	20898.	128.02	26750.
91	WOOD	586.	764.31	4479.
93	LIQUID PETROL GAS	2.	10000.00	200.
95	OTHER	0.	---	---
	TOTAL	89158.	61.96	55246.

SOX

THETA = 57.67

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	1331.	663.26	8828.
77	BITUMINOUS COAL	86897.	82.09	71330.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	80474.	85.30	68643.
85	DISTILLATE OIL	4355.	366.67	15969.
88	NATURAL GAS	2965.	444.33	13176.
91	WOOD	49.	3456.79	1694.
93	LIQUID PETROL GAS	0.	---	---
95	OTHER	0.	---	---
	TOTAL	176071.	57.67	101535.

NOX

THETA = 50.86

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	86.	2226.79	1915.
77	BITUMINOUS COAL	17330.	156.87	27185.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	20031.	145.91	29227.
85	DISTILLATE OIL	2611.	404.13	10552.
88	NATURAL GAS	124134.	58.61	72757.
91	WOOD	625.	826.01	5163.

	LIQUID PETROL GAS	10.	6530.22	653.
95	OTHER	0.	---	---
	TOTAL	164827.	50.86	83838.

HC

THETA = 200.71

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	2.	10000.00	200.
77	BITUMINOUS COAL	1657.	527.86	8747.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	954.	695.68	6637.
85	DISTILLATE OIL	132.	1870.22	2469.
88	NATURAL GAS	8575.	232.04	19897.
91	WOOD	140.	1816.00	2542.
93	LIQUID PETROL GAS	1.	10000.00	100.
95	OTHER	0.	---	---
	TOTAL	11461.	200.71	23003.

CO

THETA = 277.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	114.	4178.26	4763.
77	BITUMINOUS COAL	4882.	638.48	31171.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	84.	4867.52	4089.
85	DISTILLATE OIL	10.	10000.00	1000.
88	NATURAL GAS	20585.	310.94	64006.
91	WOOD	125.	3990.18	4988.
93	LIQUID PETROL GAS	2.	10000.00	200.
95	OTHER	0.	---	---
	TOTAL	25802.	277.73	71660.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ELECTRIC GENERATION

DRIVER TABLE 27

PARTICULATES

THETA = 545.35

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	1043.	572.65	5973.
106	NATURAL GAS	13.	5129.27	667.
107	DIESEL	94.	1907.50	1793.
108	OTHER	0.	---	---
	TOTAL	1150.	545.35	6272.

SOX

THETA = 477.59

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	2371.	496.96	11782.
106	NATURAL GAS	0.	---	---
107	DIESEL	196.	1728.40	3388.
108	OTHER	0.	---	---
	TOTAL	2567.	477.59	12260.

NOX

THETA = 171.50

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	8287.	226.84	18798.
106	NATURAL GAS	3523.	347.90	12257.
107	DIESEL	2687.	399.36	10706.
108	OTHER	0.	---	---
	TOTAL	14497.	171.50	24863.

HC

THETA = 1161.67

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	62.	2728.93	1692.
106	NATURAL GAS	0.	---	---
107	DIESEL	269.	1310.12	3524.
108	OTHER	0.	---	---
	TOTAL	331.	1181.07	3909.

CO

THETA = 1073.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	92.	4651.17	4279.
106	NATURAL GAS	0.	---	---
107	DIESEL	1634.	1103.65	18034.
108	OTHER	0.	---	---
	TOTAL	1726.	1073.83	18534.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
INDUSTRIAL FUEL

DRIVER TABLE 2P

PARTICULATES

THETA = 489.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	86.	1994.41	1715.
112	NATURAL GAS	1285.	515.96	6630.
113	GASOLINE	9.	6165.14	555.
114	DIESEL FUEL	48.	2669.58	1281.
115	OTHER	0.	---	---
	TOTAL	1428.	489.44	6989.

SOX

THETA = 274.00

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	408.	1197.80	4887.
112	NATURAL GAS	7299.	283.21	20672.
113	GASOLINE	4.	10000.00	400.
114	DIESEL FUEL	87.	2594.08	2257.
115	OTHER	0.	---	---
	TOTAL	7798.	274.00	21367.

NOX

THETA = 22.65

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	920.	680.82	6264.
112	NATURAL GAS	828953.	22.68	188015.
113	GASOLINE	168.	1593.21	2677.
114	DIESEL FUEL	1245.	585.25	7286.
115	OTHER	0.	---	---
	TOTAL	831286.	22.65	188279.

HC

THETA = 127.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	35.	3632.07	1271.
112	NATURAL GAS	27637.	129.25	35722.
113	GASOLINE	491.	969.72	4761.
114	DIESEL FUEL	128.	1899.26	2431.
115	OTHER	0.	---	---
	TOTAL	28291.	127.75	36142.

CO

THETA = 397.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	212.	3044.00	6496.
112	NATURAL GAS	10423.	435.98	45546.
113	GASOLINE	1228.	1273.08	15633.
114	DIESEL FUEL	729.	1652.31	12048.
115	OTHER	0.	---	---
	TOTAL	12592.	397.97	50081.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
COMM-INSTITUTIONAL

DRIVER TABLE 20

PARTICULATES

THETA = 2541.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	47.	2698.78	1268.
119	OTHER	6.	7553.37	453.
	TOTAL	53.	2541.43	1347.

SOX

THETA = 2431.65

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	97.	2456.89	2383.
119	OTHER	2.	10000.00	200.
	TOTAL	99.	2431.95	2408.

NOX

THETA = 564.34

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	1328.	566.67	7525.
119	OTHER	11.	6226.32	685.
	TOTAL	1339.	564.34	7556.

HC

THETA = 1603.20

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	133.	1863.21	2478.
119	OTHER	9.	7162.54	645.
	TOTAL	142.	1603.20	2561.

CO

THETA = 1566.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	808.	1569.46	12681.
119	OTHER	3.	10000.00	300.
	TOTAL	811.	1566.56	12705.

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SOURCE HIERARCHY — DRIVER TABLE 3C
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ENGINE-TESTING

PARTICULATES

THETA = 1029.47

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	172.	1410.76	2427.
123	OTHER	151.	1505.66	2274.
	TOTAL	323.	1029.47	3325.

SOX

THETA = 2851.71

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	72.	2851.71	2053.
123	OTHER	0.	---	---
	TOTAL	72.	2851.71	2053.

NOX

THETA = 1036.41

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	397.	1036.41	4115.
123	OTHER	0.	---	---
	TOTAL	397.	1036.41	4115.

HC

THETA = 1106.67

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	377.	1106.67	4172.
123	OTHER	0.	---	---
	TOTAL	377.	1106.67	4172.

CO

THETA = 1455.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	940.	1455.10	13678.
123	OTHER	0.	---	---
	TOTAL	940.	1455.10	13678.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
RESIDENTIAL FUEL (AREA)

DRIVER TABLE 31

PARTICULATES

THETA = 35.95

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	12344.	166.53	20556.
16	BITUMINOUS COAL	79062.	65.83	52024.
17	DISTILLATE OIL	72879.	68.54	49948.
18	RESIDUAL OIL	295.	1077.22	3178.
19	NATURAL GAS	47927.	84.51	40505.
20	WOOD	52377.	80.84	42343.
	TOTAL	264884.	35.95	95223.

SOX

THETA = 28.38

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	32313.	134.81	43497.
16	BITUMINOUS COAL	307600.	43.63	134204.
17	DISTILLATE OIL	382336.	39.13	149622.
18	RESIDUAL OIL	2417.	492.19	11896.
19	NATURAL GAS	1513.	622.09	9412.
20	WOOD	1048.	747.47	7833.
	TOTAL	727227.	28.38	206351.

NOX

THETA = 41.25

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3703.	339.35	12566.
16	BITUMINOUS COAL	11859.	189.63	22488.
17	DISTILLATE OIL	87454.	69.83	61068.
18	RESIDUAL OIL	513.	911.73	4677.
19	NATURAL GAS	126125.	58.15	73339.
20	WOOD	20951.	142.67	29890.
	TOTAL	250605.	41.25	103376.

HC

THETA = 59.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3086.	386.80	11937.
16	BITUMINOUS COAL	79062.	76.42	60418.
17	DISTILLATE OIL	21864.	145.32	31772.
18	RESIDUAL OIL	38.	3485.68	1325.
19	NATURAL GAS	20180.	151.26	30524.
20	WOOD	4190.	331.95	13909.
	TOTAL	128420.	59.96	77001.

CO

THETA = 59.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	111094.	133.85	148697.
16	BITUMINOUS COAL	355781.	74.79	266102.
17	DISTILLATE OIL	36439.	233.71	85161.
18	RESIDUAL OIL	3.	10000.00	300.
19	NATURAL GAS	50450.	198.62	100204.
20	WOOD	4190.	689.21	28878.
	TOTAL	557957.	59.72	333240.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
AREA SOURCES

DRIVER TABLE 32

PARTICULATES

THETA = 15.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	1350782.	15.92	215035.
45	RESIDUAL OIL	13156.	161.31	21222.
48	DISTILLATE OIL	24531.	118.13	28978.
51	NATURAL GAS	22282.	123.95	27618.
54	PROCESS GAS	6.	7953.38	453.
57	COKE	0.	---	---
60	WOOD	1460.	484.22	7072.
	TOTAL	1412217.	15.57	219871.

SOX

THETA = 22.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	903767.	25.45	230038.
45	RESIDUAL OIL	48799.	109.94	53654.
48	DISTILLATE OIL	247475.	48.84	120875.
51	NATURAL GAS	743.	887.72	6596.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	29.	4493.38	1303.
	TOTAL	1200813.	22.08	265161.

NOX

THETA = 28.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	175953.	49.23	86621.
45	RESIDUAL OIL	52623.	90.02	47371.
48	DISTILLATE OIL	63994.	81.63	52239.
51	NATURAL GAS	222816.	43.75	97476.
54	PROCESS GAS	71.	2450.76	1742.
57	COKE	0.	---	---
60	WOOD	584.	854.52	4990.
	TOTAL	516041.	28.75	148344.

HC

THETA = 82.89

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	11730.	198.40	23272.
45	RESIDUAL OIL	2631.	420.91	11022.
48	DISTILLATE OIL	3200.	379.84	12155.
51	NATURAL GAS	49515.	96.56	47813.
54	PROCESS GAS	12.	6202.83	744.
57	COKE	0.	---	---
60	WOOD	117.	1986.50	2324.
	TOTAL	67205.	82.89	55703.

CO

THETA = 285.25

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	23460.	291.26	68330.
45	RESIDUAL OIL	175.	3372.32	5902.
48	DISTILLATE OIL	213.	3056.73	6511.
51	NATURAL GAS	995.	2005.14	9925.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	117.	4124.34	4829.
	TOTAL	24660.	285.29	69771.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
COMM-INSTITUTIONAL FUEL
AREA SOURCES

DRIVER TABLE 33

PARTICULATES

THETA = 35.28

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	504.	824.14	4154.
76	BITUMINOUS COAL	144322.	48.70	70288.
81	RESIDUAL OIL	51482.	81.54	41980.
84	DISTILLATE OIL	60861.	75.00	45644.
87	NATURAL GAS	17737.	138.92	24641.
90	WOOD	102.	1831.96	1869.
	TOTAL	275008.	35.28	97026.

SOX

THETA = 23.76

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	581.	1003.88	5833.
76	BITUMINOUS COAL	221777.	51.38	113954.
81	RESIDUAL OIL	596181.	31.34	186836.
84	DISTILLATE OIL	217820.	51.85	112933.
87	NATURAL GAS	560.	1022.53	5726.
90	WOOD	2.	10000.00	200.
	TOTAL	1036921.	23.76	246402.

NOX

THETA = 29.27

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	221.	1389.09	3070.
76	BITUMINOUS COAL	26351.	127.71	33522.
81	RESIDUAL OIL	134300.	56.35	75677.
84	DISTILLATE OIL	242443.	41.85	101889.
87	NATURAL GAS	93352.	67.59	63094.
90	WOOD	41.	3225.04	1322.
	TOTAL	497708.	29.27	145685.

HC

THETA = 119.94

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	4.	10000.00	400.
76	BITUMINOUS COAL	5728.	283.90	16262.
81	RESIDUAL OIL	6715.	262.21	17607.
84	DISTILLATE OIL	12172.	194.76	23706.
87	NATURAL GAS	7466.	248.64	18568.
90	WOOD	8.	7596.77	608.
	TOTAL	32095.	119.94	38494.

CO

THETA = 221.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	133.	3868.39	5145.
76	BITUMINOUS COAL	20623.	310.66	64067.
81	RESIDUAL OIL	648.	2107.74	9443.
84	DISTILLATE OIL	811.	1566.56	12705.
87	NATURAL GAS	18670.	326.50	60958.
90	WOOD	8.	10000.00	800.
	TOTAL	40893.	221.15	89995.

Weighted Sensitifity Analysis

of the

Nationwide Emissions Report

for Θ = 6.32%

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DRIVER TABLE 1

SOURCE HIERARCHY
GRAND TOTAL

PARTICULATES

THETA = 6.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3507743.	13.97	489937.
236	POINT SOURCES	13624732.	7.09	965585.
	TOTAL	17132464.	6.32	1082771.

SOX

THETA = 6.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	3589057.	18.06	648144.
236	POINT SOURCES	25715088.	6.75	1734905.
	TOTAL	29304144.	6.32	1852021.

NOX

THETA = 6.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	9237179.	9.61	887375.
236	POINT SOURCES	12105130.	8.39	1015833.
	TOTAL	21342304.	6.32	1348833.

HC

THETA = 6.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	17684672.	7.22	1277582.
236	POINT SOURCES	5422538.	13.05	707444.
	TOTAL	23107200.	6.32	1460374.

CO

THETA = 6.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
235	AREA SOURCES	74560608.	7.30	5446543.
236	POINT SOURCES	25048400.	12.60	3156867.

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DRIVER TABLE 2

SOURCE HIERARCHY
POINT SOURCES

PARTICULATES

THETA = 7.09

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	5073194.	11.61	589206.
145	INDUSTRIAL PROCESS (POINT)	8410250.	9.02	758632.
190	SOLID WASTE DISPOSAL	141280.	69.60	98326.
231	OTHER (POINT)	8.	9248.72	740.
	TOTAL	13624732.	7.09	965585.

SOX

THETA = 6.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	19105568.	7.83	1495413.
145	INDUSTRIAL PROCESS (POINT)	6580464.	13.34	877627.
190	SOLID WASTE DISPOSAL	29040.	200.73	58311.
231	OTHER (POINT)	0.	---	---
	TOTAL	25715072.	6.75	1734903.

NOX

THETA = 8.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	8827916.	9.83	867494.
145	INDUSTRIAL PROCESS (POINT)	3252095.	16.19	526525.
190	SOLID WASTE DISPOSAL	25119.	184.22	46274.
231	OTHER (POINT)	0.	---	---
	TOTAL	12105130.	8.39	1015833.

HC

THETA = 13.05

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	385365.	48.94	188594.
145	INDUSTRIAL PROCESS (POINT)	4883692.	13.75	671375.
190	SOLID WASTE DISPOSAL	153482.	77.55	119020.
231	OTHER (POINT)	0.	---	---
	TOTAL	5422539.	13.05	707464.

CO

THETA = 12.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
129	FUEL COMBUSTION	6182023.	25.37	1568308.
145	INDUSTRIAL PROCESS (POINT)	18012720.	14.86	2677045.
190	SOLID WASTE DISPOSAL	853650.	68.27	582782.
231	OTHER (POINT)	0.	---	---
	TOTAL	25048384.	12.60	3156865.

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SOURCE HIERARCHY
AREA SOURCES

DRIVER TABLE 3

PARTICULATES

THETA = 13.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1952109.	18.72	365493.
189	SOLID WASTE DISPOSAL	617275.	33.30	205526.
216	TRANSPORTATION (AREA)	718081.	30.87	221673.
230	MISCELLANEOUS (AREA)	220278.	55.74	122776.
	TOTAL	3507743.	13.97	489937.

SOX

THETA = 18.06

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	2964961.	19.87	589102.
189	SOLID WASTE DISPOSAL	41595.	167.75	69775.
216	TRANSPORTATION (AREA)	582501.	44.83	261114.
230	MISCELLANEOUS (AREA)	0.	---	---
	TOTAL	3589057.	18.06	648144.

NOX

THETA = 9.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	1264356.	25.97	328301.
189	SOLID WASTE DISPOSAL	132713.	80.15	106364.
216	TRANSPORTATION (AREA)	7814195.	10.44	816168.
230	MISCELLANEOUS (AREA)	25915.	181.37	47002.
	TOTAL	9237179.	9.61	887375.

HC

THETA = 7.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	227722.	63.66	144975.
189	SOLID WASTE DISPOSAL	1296233.	26.68	345885.
216	TRANSPORTATION (AREA)	14517727.	7.97	1157553.
230	MISCELLANEOUS (AREA)	1643005.	23.70	389413.
	TOTAL	17684672.	7.22	1277582.

CO

THETA = 7.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
128	FUEL COMBUSTION	623111.	79.91	497908.
189	SOLID WASTE DISPOSAL	3466887.	33.89	1174081.
216	TRANSPORTATION (AREA)	69695360.	7.56	5269845.
230	MISCELLANEOUS (AREA)	777451.	71.54	556164.
	TOTAL	74560592.	7.30	5446542.

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SOURCE HIERARCHY
FUEL COMBUSTION
POINT SOURCES

DRIVER TABLE 4

PARTICULATES

THETA = 11.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	5070238.	11.62	589035.
126	INTERNAL COMBUSTION (POINT)	2956.	481.14	14223.
	TOTAL	5073194.	11.61	589206.

SOX

THETA = 7.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	19095024.	7.83	1494999.
126	INTERNAL COMBUSTION (POINT)	10537.	333.29	35119.
	TOTAL	19105552.	7.83	1495412.

NOX

THETA = 9.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	7980397.	10.34	824802.
126	INTERNAL COMBUSTION (POINT)	847519.	31.71	268789.
	TOTAL	8827916.	9.83	867494.

HC

THETA = 48.94

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	356005.	50.92	181267.
126	INTERNAL COMBUSTION (POINT)	29360.	177.30	52056.
	TOTAL	385365.	48.94	188594.

CO

THETA = 25.37

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
102	EXTERNAL COMBUSTION	6165954.	25.40	1566267.
126	INTERNAL COMBUSTION (POINT)	16069.	497.59	79958.
	TOTAL	6182023.	25.37	1568308.

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SOURCE HIERARCHY
INDUSTRIAL PROCESS (PCINT)

DRIVER TABLE 5

PARTICULATES

THETA = 9.02

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	194243.	59.35	115292.
133	FOOD/AGRICULTURAL	215492.	56.35	121435.
134	PRIMARY METAL	1476560.	21.53	317872.
135	SECONDARY METALS	144426.	68.83	99414.
136	MINERAL PRODUCTS	4589503.	12.21	560415.
137	PETROLEUM INDUSTRY	1432023.	21.86	313041.
138	WOOD PRODUCTS	323630.	45.98	148816.
139	EVAPORATION	881.	881.33	7765.
140	METAL FABRICATION	4035.	411.82	16617.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	501.	1168.71	5855.
143	INPROCESS FUEL	20592.	182.30	37538.
144	OTHER/NOT CLASSIFIED	8364.	286.04	23924.
	TOTAL	8410250.	9.02	758632.

SOX

THETA = 13.34

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	431773.	52.07	224806.
133	FOOD/AGRICULTURAL	912.	1132.88	10332.
134	PRIMARY METAL	3792555.	17.57	666265.
135	SECONDARY METALS	89538.	114.33	102373.
136	MINERAL PRODUCTS	305369.	61.91	189058.
137	PETROLEUM INDUSTRY	1832762.	25.27	463164.
138	WOOD PRODUCTS	81283.	120.00	97540.
139	EVAPORATION	2545.	678.17	17259.
140	METAL FABRICATION	2266.	718.71	16286.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	40.	5409.43	2164.
143	INPROCESS FUEL	30513.	195.86	59762.
144	OTHER/NOT CLASSIFIED	10908.	327.57	35732.
	TOTAL	6580464.	13.34	877627.

NOX

THETA = 16.19

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	91649.	96.44	88390.
133	FOOD/AGRICULTURAL	2989.	534.04	15962.

134	PRIMARY METAL	15060.	237.92	35830.
135	SECONDARY METALS	1776.	692.81	12304.
136	MINERAL PRODUCTS	99161.	92.72	91941.
137	PETROLEUM INDUSTRY	3020727.	16.80	507449.
138	WOOD PRODUCTS	2230.	618.28	13788.
139	EVAPORATION	545.	1250.66	6816.
140	METAL FABRICATION	905.	970.54	8783.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	16618.	226.49	37638.
144	OTHER/NOT CLASSIFIED	433.	1403.12	6075.
	TOTAL	3252093.	16.19	526525.

HC

THETA = 13.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	2151455.	20.71	445612.
133	FOOD/AGRICULTURAL	22255.	203.65	45322.
134	PRIMARY METAL	111779.	90.87	101571.
135	SECONDARY METALS	2264.	638.49	14455.
136	MINERAL PRODUCTS	7559.	349.43	26413.
137	PETROLEUM INDUSTRY	865146.	32.66	282576.
138	WOOD PRODUCTS	12764.	268.90	34323.
139	EVAPORATION	1598193.	24.03	384065.
140	METAL FABRICATION	1002.	959.75	9617.
141	LEATHER PRODUCTS	380.	1558.47	5922.
142	TEXTILE MANUFACTURING	4778.	439.51	21000.
143	INPROCESS FUEL	12479.	271.96	33939.
144	OTHER/NOT CLASSIFIED	93637.	99.28	92964.
	TOTAL	4883691.	13.75	671374.

B-87

CO

THETA = 14.86

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
132	CHEMICAL MANUFACTURING	5799504.	26.19	1519010.
133	FOOD/AGRICULTURAL	548.	2694.48	14766.
134	PRIMARY METAL	2980138.	36.54	1088888.
135	SECONDARY METALS	1393596.	53.43	744618.
136	MINERAL PRODUCTS	18723.	460.98	86308.
137	PETROLEUM INDUSTRY	7254689.	23.42	1698925.
138	WOOD PRODUCTS	527647.	86.83	458181.
139	EVAPORATION	2110.	1373.17	28974.
140	METAL FABRICATION	38.	10000.00	3800.
141	LEATHER PRODUCTS	0.	---	---
142	TEXTILE MANUFACTURING	0.	---	---
143	INPROCESS FUEL	4881.	902.84	44068.
144	OTHER/NOT CLASSIFIED	30860.	359.06	110806.
	TOTAL	18012672.	14.86	2677037.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
POINT SOURCES

DRIVER TABLE 6

PARTICULATES

THETA = 69.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60658.	106.21	64428.
170	COMMERCIAL-INSTITUTIONAL	3527.	440.48	15536.
186	INDUSTRIAL	77089.	94.22	72631.
187	OTHER (POINT)	7.	9887.33	692.
	TOTAL	141281.	69.60	98326.

SOX

THETA = 200.73

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	6920.	411.27	28460.
170	COMMERCIAL-INSTITUTIONAL	779.	1225.78	9549.
186	INDUSTRIAL	21350.	234.14	49990.
187	OTHER (POINT)	0.	---	---
	TOTAL	29049.	200.73	58311.

NOX

THETA = 184.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	13771.	248.80	34263.
170	COMMERCIAL-INSTITUTIONAL	786.	1041.42	8186.
186	INDUSTRIAL	10562.	284.10	30006.
187	OTHER (POINT)	0.	---	---
	TOTAL	25119.	184.22	46274.

HC

THETA = 77.55

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	60731.	123.28	74868.
170	COMMERCIAL-INSTITUTIONAL	2166.	652.77	14139.
186	INDUSTRIAL	90584.	100.94	91436.
187	OTHER (POINT)	0.	---	---
	TOTAL	153481.	77.55	119019.

CO

THETA = 68.27

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
152	GOVERNMENT (POINT)	201869.	140.39	283401.
170	COMMERCIAL-INSTITUTIONAL	15138.	512.66	77607.
186	INDUSTRIAL	636643.	79.05	503285.
187	OTHER (POINT)	0.	---	---
	TOTAL	853650.	68.27	582782.

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DRIVER TABLE 7

SOURCE HIERARCHY
FUEL COMBUSTION
AREA SOURCES

PARTICULATES

THETA = 18.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1952109.	18.72	365492.
	TOTAL	1952109.	18.72	365493.

SOX

THETA = 19.87

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	2964961.	19.87	589102.
	TOTAL	2964961.	19.87	589102.

NOX

THETA = 25.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	1264356.	25.97	328301.
	TOTAL	1264356.	25.97	328301.

HC

THETA = 63.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	227722.	63.66	144975.
	TOTAL	227722.	63.66	144975.

CO

THETA = 79.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
101	AREA SOURCES	623111.	79.91	497908.
	TOTAL	623111.	79.91	497908.

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DRIVER TABLE 8

SOURCE HIERARCHY
SOLID WASTE DISPOSAL
AREA SOURCES

PARTICULATES

THETA = 33.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
156	RESIDENTIAL (AREA)	294325.	48.22	141919.
169	COMMERCIAL-INSTITUTIONAL	70503.	98.52	69459.
185	INDUSTRIAL	252447.	52.06	131435.
	TOTAL	617275.	33.30	205526.

SOX

THETA = 167.75

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
156	RESIDENTIAL (AREA)	10172.	339.22	34505.
169	COMMERCIAL-INSTITUTIONAL	6403.	427.55	27376.
185	INDUSTRIAL	25020.	216.29	54116.
	TOTAL	41595.	167.75	69775.

NOX

THETA = 80.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
156	RESIDENTIAL (AREA)	49070.	131.80	64676.
169	COMMERCIAL-INSTITUTIONAL	19783.	207.58	41066.
185	INDUSTRIAL	63860.	115.54	73782.
	TOTAL	132713.	80.15	106364.

HC

THETA = 26.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
156	RESIDENTIAL (AREA)	842238.	33.10	278810.
169	COMMERCIAL-INSTITUTIONAL	108552.	92.21	100094.
185	INDUSTRIAL	345443.	51.69	178558.
	TOTAL	1296233.	26.68	345885.

CO

THETA = 33.89

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
156	RESIDENTIAL (AREA)	2404628.	40.68	978115.
169	COMMERCIAL-INSTITUTIONAL	258068.	124.16	320430.
185	INDUSTRIAL	801991.	70.43	564873.
	TOTAL	3464687.	33.89	1174081.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)

DRIVER TABLE 9

PARTICULATES

THETA = 30.87

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	377243.	42.59	160671.
203	DIESEL	107901.	79.84	85929.
208	AIRCRAFT	211138.	56.93	120201.
214	VESSELS	21799.	177.18	38623.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	718081.	30.87	221673.

SOX

THETA = 44.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	226643.	71.86	162874.
203	DIESEL	248312.	68.66	170482.
208	AIRCRAFT	42071.	166.80	70173.
214	VESSELS	65474.	133.70	87542.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	582500.	44.83	261113.

NOX

THETA = 10.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	5889274.	12.03	708547.
203	DIESEL	1736867.	22.15	384787.
208	AIRCRAFT	113021.	86.85	98154.
214	VESSELS	75033.	106.59	79977.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	7814195.	10.44	816168.

HC

THETA = 7.97

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	12742645.	8.51	1084477.
203	DIESEL	262421.	59.30	155629.
208	AIRCRAFT	513031.	42.41	217602.
214	VESSELS	86250.	103.45	89222.
215	GAS HANDLING EVAP LOSS	913379.	31.79	290346.
	TOTAL	14517726.	7.97	1157559.

CO

THETA = 7.56

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
193	LAND VEHICLES	0.	---	---
198	GASOLINE	67359072.	7.69	5176830.
203	DIESEL	1084489.	80.57	454868.
208	AIRCRAFT	896217.	66.63	597135.
214	VESSELS	355973.	105.78	376123.
215	GAS HANDLING EVAP LOSS	0.	---	---
	TOTAL	69695328.	7.56	5265842.

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SOURCE HIERARCHY
MISCELLANEOUS (AREA)

DRIVER TABLE 10

PARTICULATES

THETA = 55.74

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	220278.	55.74	122776.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	220278.	55.74	122776.

SOX

THETA = 0.0

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	0.	---	---
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	0.	0.0	0.

NOX

THETA = 181.37

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	25915.	181.37	47002.
223	FROST CONTROL	0.	---	---

225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	25915.	181.37	47002.

HC

THETA = 23.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	259150.	59.68	154656.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	1383855.	25.83	357384.
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	1643005.	23.70	389413.

CO

THETA = 71.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
219	FOREST FIRE/AGRIC BURNING	0.	---	---
220	STRUCTURAL FIRES	0.	---	---
221	COAL REFUSE BURNING	0.	---	---
222	SLASH BURNING	777451.	71.54	556163.
223	FROST CONTROL	0.	---	---
224	SOLVENT EVAPORATION LOSS	0.	---	---
225	DUST SOURCES	0.	---	---
226	DIRT ROADS	0.	---	---
227	DIRT AIRSTRIPS	0.	---	---
228	CONSTRUCTION	0.	---	---
229	ROCK HANDLING/STORING	0.	---	---
	TOTAL	777451.	71.54	556164.

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SOURCE HIERARCHY
EXTERNAL COMBUSTION
POINT SOURCES

DRIVER TABLE 11

PARTICULATES

THETA = 11.62

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	3416197.	14.15	483502.
70	INDUSTRIAL FUEL	1562142.	20.93	326954.
98	COMM-INSTITUTIONAL FUEL	89158.	87.61	78110.
99	OTHER (POINT)	2741.	499.66	13696.
	TOTAL	5070238.	11.62	589035.

SOX

THETA = 7.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	15317302.	8.74	1338974.
70	INDUSTRIAL FUEL	3601454.	18.03	649262.
98	COMM-INSTITUTIONAL FUEL	176071.	81.53	143557.
99	OTHER (POINT)	211.	2355.27	4970.
	TOTAL	19095024.	7.83	1494999.

NOX

THETA = 10.34

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	5365898.	12.60	676330.
70	INDUSTRIAL FUEL	2449426.	18.66	456951.
98	COMM-INSTITUTIONAL FUEL	164827.	71.92	118536.
99	OTHER (POINT)	246.	1861.53	4579.
	TOTAL	7980397.	10.34	824802.

HC

THETA = 50.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	121528.	87.15	105908.
70	INDUSTRIAL FUEL	223016.	64.33	143469.
98	COMM-INSTITUTIONAL FUEL	11461.	283.78	32524.
99	OTHER (POINT)	0.	---	---
	TOTAL	356005.	50.92	181267.

CO

THETA = 25.40

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
34	ELEC GENERATION (POINT)	6051697.	25.64	1551687.
70	INDUSTRIAL FUEL	88455.	212.08	187597.
98	COMM-INSTITUTIONAL FUEL	25803.	392.67	101321.
99	OTHER (POINT)	0.	---	---
	TOTAL	6165955.	25.40	1566267.

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SOURCE HIERARCHY
INTERNAL COMBUSTION (POINT)

DRIVER TABLE 12

PARTICULATES

THETA = 481.14

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1151.	771.06	8875.
116	INDUSTRIAL FUEL	1429.	692.01	9889.
120	COMM-INSTITUTIONAL	53.	3593.26	1904.
124	ENGINE-TESTING	323.	1455.54	4701.
125	OTHER (POINT)	0.	---	---
	TOTAL	2956.	481.14	14223.

SOX

THETA = 333.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	2567.	675.26	17334.
116	INDUSTRIAL FUEL	7799.	387.40	30213.
120	COMM-INSTITUTIONAL	99.	3438.46	3404.
124	ENGINE-TESTING	72.	4031.95	2903.
125	OTHER (POINT)	0.	---	---
	TOTAL	10537.	333.29	35119.

NOX

THETA = 31.71

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	14498.	242.48	35155.
116	INDUSTRIAL FUEL	831285.	32.02	266203.
120	COMM-INSTITUTIONAL	1339.	797.90	10684.
124	ENGINE-TESTING	397.	1465.35	5817.
125	OTHER (POINT)	0.	---	---
	TOTAL	847519.	31.71	268789.

HC

THETA = 177.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	331.	1669.88	5527.
116	INDUSTRIAL FUEL	28291.	180.62	51100.
120	COMM-INSTITUTIONAL	142.	2549.49	3620.
124	ENGINE-TESTING	377.	1564.69	5899.
125	OTHER (POINT)	220.	2048.27	4506.
	TOTAL	29361.	177.30	52057.

CO

THETA = 497.99

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
109	ELECTRIC GENERATION	1726.	1518.26	26205.
116	INDUSTRIAL FUEL	12592.	562.11	70780.
120	COMM-INSTITUTIONAL	811.	2214.91	17963.
124	ENGINE-TESTING	940.	2057.32	19339.
125	OTHER (POINT)	0.	---	---
	TOTAL	16069.	497.59	79958.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
GOVERNMENT (POINT)

DRIVER TABLE 13

PARTICULATES

THETA = 106.21

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	34619.	140.60	48673.
150	OPEN BURNING	26039.	162.11	42212.
151	OTHER	0.	---	---
	TOTAL	60658.	106.21	64428.

SOX

THETA = 411.27

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	5323.	468.92	24961.
150	OPEN BURNING	1597.	856.11	13672.
151	OTHER	0.	---	---
	TOTAL	6920.	411.27	28460.

NOX

THETA = 248.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	4268.	446.92	19074.
150	OPEN BURNING	9503.	299.51	28462.
151	OTHER	0.	---	---
	TOTAL	13771.	248.80	34263.

HC

THETA = 123.28

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	12453.	272.24	33902.
150	OPEN BURNING	48278.	138.27	66752.
151	OTHER	0.	---	---
	TOTAL	60731.	123.28	74868.

CO

THETA = 140.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
149	MUNICIPAL INCINERATION	64403.	248.55	160074.
150	OPEN BURNING	137467.	170.13	233866.
151	OTHER	0.	---	---
	TOTAL	201870.	140.39	283402.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
POINT SOURCES

DRIVER TABLE 14

PARTICULATES

THETA = 440.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1263.	735.98	9295.
163	OPEN BURNING	1159.	768.29	8904.
165	APARTMENT	1104.	787.19	8691.
167	OTHER	0.	---	---
	TOTAL	3526.	440.48	15531.

SOX

THETA = 1225.78

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	761.	1240.99	9444.
163	OPEN BURNING	0.	---	---
165	APARTMENT	19.	7853.86	1492.
167	OTHER	0.	---	---
	TOTAL	780.	1225.78	9561.

NOX

THETA = 1041.42

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	534.	1263.48	6747.
163	OPEN BURNING	136.	2503.62	3405.
165	APARTMENT	116.	2710.87	3145.
167	OTHER	0.	---	---
	TOTAL	786.	1041.42	8186.

HC

THETA = 652.77

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	1341.	829.61	11125.
163	OPEN BURNING	273.	1838.69	5020.
165	APARTMENT	552.	1293.06	7138.
167	OTHER	0.	---	---
	TOTAL	2166.	652.77	14139.

CO

THETA = 512.46

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
160	ON SITE INCINERATION	10989.	601.71	66122.
163	OPEN BURNING	3409.	1080.32	36828.
165	APARTMENT	740.	2318.73	17159.
167	OTHER	0.	---	---
	TOTAL	15138.	512.66	77607.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
INDUSTRIAL
POINT SOURCES

DRIVER TABLE 15

PARTICULATES

THETA = 94.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	62791.	104.39	65551.
177	OPEN BURNING	14246.	219.17	31223.
179	AUTO BODY INCINERATION	14.	6991.39	979.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	38.	4243.61	1613.
	TOTAL	77089.	94.22	72631.

SOX

THETA = 234.14

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	17945.	255.39	45830.
177	OPEN BURNING	255.	2142.45	5463.
179	AUTO BODY INCINERATION	0.	---	---
181	RAIL CAR BURNING	0.	---	---
183	OTHER	3150.	609.57	19202.
	TOTAL	21350.	234.14	49990.

NOX

THETA = 284.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	7788.	330.86	25767.
177	OPEN BURNING	2766.	555.18	15356.
179	AUTO BODY INCINERATION	1.	10000.00	100.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	8.	10000.00	800.
	TOTAL	10563.	284.10	30009.

HC

THETA = 100.94

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	55589.	128.85	71628.
177	OPEN BURNING	34913.	162.59	56765.
179	AUTO BODY INCINERATION	3.	10000.00	300.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	79.	3418.03	2700.
	TOTAL	90584.	100.94	91436.

CO

THETA = 79.05

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
174	ON SITE INCINERATION	587646.	82.28	483530.
177	OPEN BURNING	48957.	285.07	139564.
179	AUTO BODY INCINERATION	17.	10000.00	1700.
181	RAIL CAR BURNING	0.	---	---
183	OTHER	22.	10000.00	2200.
	TOTAL	636642.	79.05	503284.

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SOURCE HIERARCHY
EXTERNAL COMBUSTION
AREA SOURCES

DRIVER TABLE 16

PARTICULATES

THETA = 18.72

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	264885.	50.83	134634.
69	INDUSTRIAL FUEL	1412216.	22.01	310868.
97	COMM-INSTITUTIONAL FUEL	275008.	49.88	137183.
	TOTAL	1952109.	18.72	365492.

SOX

THETA = 19.87

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	727227.	40.12	291753.
69	INDUSTRIAL FUEL	1200813.	31.22	374905.
97	COMM-INSTITUTIONAL FUEL	1036922.	33.60	348385.
	TOTAL	2964962.	19.87	589102.

NOX

THETA = 25.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	290606.	50.32	146161.
69	INDUSTRIAL FUEL	516042.	40.44	209739.
97	COMM-INSTITUTIONAL FUEL	497708.	41.39	205980.
	TOTAL	1284356.	25.57	328301.

HC

THETA = 63.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	128421.	84.78	108870.
69	INDUSTRIAL FUEL	67205.	117.19	78757.
97	COMM-INSTITUTIONAL FUEL	32096.	169.58	54427.
	TOTAL	227722.	63.66	144975.

CO

THETA = 79.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
21	RESIDENTIAL FUEL (AREA)	557957.	84.44	471158.
69	INDUSTRIAL FUEL	24461.	403.30	98651.
97	COMM-INSTITUTIONAL FUEL	40693.	312.68	127241.
	TOTAL	623111.	79.91	497908.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
RESIDENTIAL (AREA)

DRIVER TABLE 17

PARTICULATES

THETA = 48.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	179419.	61.76	110809.
155	OPEN BURNING	114906.	77.17	88674.
	TOTAL	294325.	48.22	141919.

SOX

THETA = 339.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	2990.	625.67	18708.
155	OPEN BURNING	7182.	409.70	29984.
	TOTAL	10172.	339.22	34509.

NOX

THETA = 131.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	9981.	377.53	22580.
155	OPEN BURNING	43090.	148.45	63988.
	TOTAL	48871.	131.80	64478.

HC

THETA = 33.10

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	598064.	39.28	234944.
155	OPEN BURNING	244174.	61.48	150121.
	TOTAL	842238.	33.10	278810.

CO

THETA = 40.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
154	ON SITE INCINERATION	1794192.	47.09	844890.
155	OPEN BURNING	610436.	80.73	492817.
	TOTAL	2404628.	40.68	978115.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
COMMERCIAL-INSTITUTIONAL
AREA SOURCES

DRIVER TABLE 18

PARTICULATES

THETA = 98.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	31949.	146.35	46758.
162	OPEN BURNING	38554.	133.23	51304.
	TOTAL	70503.	98.92	69659.

SOX

THETA = 427.55

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	3994.	541.39	21623.
162	OPEN BURNING	2410.	698.96	16797.
	TOTAL	6404.	427.55	27380.

NOX

THETA = 207.58

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	5325.	400.11	21306.
162	OPEN BURNING	14458.	242.82	35107.
	TOTAL	19783.	207.58	41066.

HC

THETA = 92.21

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	26624.	186.19	49571.
162	OPEN BURNING	81928.	106.14	86957.
	TOTAL	108552.	92.21	100094.

CO

THETA = 124.16

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
159	ON SITE INCINERATION	53248.	273.35	145552.
162	OPEN BURNING	204820.	139.37	285465.
	TOTAL	258068.	124.16	320430.

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SOURCE HIERARCHY
SOLID WASTE DISPOSAL
INDUSTRIAL
AREA SOURCES

DRIVER TABLE 19

PARTICULATES

THETA = 52.06

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	147877.	68.03	100595.
176	OPEN BURNING	104570.	90.90	94992.
	TOTAL	252447.	52.06	131439.

SO2

THETA = 216.29

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	18485.	251.64	46516.
176	OPEN BURNING	6536.	423.19	27660.
	TOTAL	25021.	216.29	54118.

NOX

THETA = 115.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	24644.	185.98	45836.
176	OPEN BURNING	38214.	147.44	57817.
	TOTAL	63860.	115.54	73782.

HC

THETA = 91.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	123230.	86.54	106647.
176	OPEN BURNING	222212.	64.45	143210.
	TOTAL	349442.	91.69	178557.

CO

THETA = 70.43

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
173	ON SITE INCINERATION	246461.	127.06	313141.
176	OPEN BURNING	555530.	84.63	470132.
	TOTAL	801991.	70.43	564879.

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DRIVER TABLE 20

SOURCE HIERARCHY
TRANSPORTATION (AREA)
LAND VEHICLES
GASOLINE

PARTICULATES

THETA = 42.59

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	344770.	44.54	153600.
196	HEAVY VEHICLES	20573.	182.38	37521.
197	OFF HIGHWAY	11900.	239.80	28536.
	TOTAL	377243.	42.59	160671.

SOX

THETA = 71.86

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	206862.	75.22	155604.
196	HEAVY VEHICLES	12344.	307.93	38011.
197	OFF HIGHWAY	7437.	396.72	29504.
	TOTAL	226643.	71.86	162874.

NOX

THETA = 12.03

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	4941699.	13.13	649046.
196	HEAVY VEHICLES	685779.	35.26	241785.
197	OFF HIGHWAY	261797.	57.06	149389.
	TOTAL	5889275.	12.03	708547.

HC

THETA = 8.51

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	10522889.	9.37	985503.
196	HEAVY VEHICLES	1397178.	25.70	359101.
197	OFF HIGHWAY	822577.	33.50	275536.
	TOTAL	12742644.	8.51	1084477.

CO

THETA = 7.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
195	LIGHT VEHICLES	57097616.	8.35	4766228.
196	HEAVY VEHICLES	5754393.	26.29	1513092.
197	OFF HIGHWAY	4507067.	29.71	1339099.
	TOTAL	67359056.	7.69	5176829.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
LAND VEHICLES
DIESEL

DRIVER TABLE 21

PARTICULATES

THETA = 79.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	40210.	130.45	52456.
201	OFF HIGHWAY	15494.	210.16	32562.
202	RAIL	52197.	114.50	59765.
	TOTAL	107901.	79.64	85929.

SOX

THETA = 68.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	80421.	120.64	97021.
201	OFF HIGHWAY	32180.	190.72	61373.
202	RAIL	135712.	92.87	126035.
	TOTAL	248313.	68.66	170483.

NOX

THETA = 22.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	1139292.	27.35	311641.
201	OFF HIGHWAY	440984.	43.97	193887.
202	RAIL	156591.	73.78	115537.
	TOTAL	1736867.	22.15	384787.

HC

THETA = 59.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	113929.	90.01	102543.
201	OFF HIGHWAY	44098.	144.67	63797.
202	RAIL	104394.	94.03	98159.
	TOTAL	262421.	59.30	155629.

CO

THETA = 60.57

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
200	HEAVY VEHICLES	670172.	77.05	516367.
201	OFF HIGHWAY	268166.	121.80	326639.
202	RAIL	146151.	164.99	241139.
	TOTAL	1084489.	60.57	656868.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
AIRCRAFT

DRIVER TABLE 27

PARTICULATES

THETA = 56.93

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	147475.	68.12	100459.
206	CIVIL	8438.	284.78	24030.
207	COMMERCIAL	55226.	111.32	61475.
	TOTAL	211139.	56.93	120202.

SOX

THETA = 166.80

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	28161.	203.87	57413.
206	CIVIL	1676.	835.70	14006.
207	COMMERCIAL	12235.	309.30	37843.
	TOTAL	42072.	166.80	70175.

NOX

THETA = 86.85

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	70847.	109.69	77713.
206	CIVIL	7622.	334.43	25490.
207	COMMERCIAL	34551.	157.07	54271.
	TOTAL	113020.	86.85	98155.

HC

THETA = 42.41

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	343120.	51.86	177956.
206	CIVIL	37369.	157.16	58728.
207	COMMERCIAL	132542.	83.45	110603.
	TOTAL	513031.	42.41	217602.

CO

THETA = 66.63

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
205	MILITARY	368317.	103.93	382804.
206	CIVIL	213538.	136.50	291478.
207	COMMERCIAL	314362.	112.50	353656.
	TOTAL	896217.	66.63	597135.

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SOURCE HIERARCHY
TRANSPORTATION (AREA)
VESSELS

DRIVER TABLE 23

PARTICULATES

THETA = 177.18

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	733.18	9333.
211	DIESEL FUEL	13667.	223.76	30582.
212	RESIDUAL OIL	6036.	336.71	20324.
213	GASOLINE	823.	911.86	7505.
	TOTAL	21799.	177.18	38623.

SOX

THETA = 133.70

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	3183.	606.40	19302.
211	DIESEL FUEL	35535.	181.49	64492.
212	RESIDUAL OIL	26242.	211.19	55422.
213	GASOLINE	514.	1509.03	7756.
	TOTAL	65474.	133.70	87542.

NOX

THETA = 106.59

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	191.	2112.62	4035.
211	DIESEL FUEL	41002.	144.19	59121.
212	RESIDUAL OIL	15745.	232.68	36636.
213	GASOLINE	18095.	217.05	39275.
	TOTAL	75033.	106.59	79977.

HC

THETA = 103.45

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	1273.	851.48	10839.
211	DIESEL FUEL	27334.	183.75	50228.
212	RESIDUAL OIL	787.	1082.94	8523.
213	GASOLINE	56856.	127.41	72440.
	TOTAL	86250.	103.45	89222.

CO

THETA = 105.78

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
210	BITUMINOUS COAL	5729.	833.35	47742.
211	DIESEL FUEL	38268.	322.44	123391.
212	RESIDUAL OIL	52.	8747.09	4548.
213	GASOLINE	311523.	113.01	352055.
	TOTAL	355572.	105.78	376122.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
ELEC GENERATION (POINT)

DRIVER TABLE 24

PARTICULATES

THETA = 14.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	19246.	188.56	36291.
24	BITUMINOUS COAL	3314900.	14.37	476279.
25	LIGNITE	27872.	156.69	43673.
26	RESIDUAL OIL	27500.	157.75	43380.
27	DISTILLATE OIL	3519.	440.98	15518.
28	NATURAL GAS	20348.	183.39	37315.
29	PROCESS GAS	46.	3856.98	1774.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	240.	1688.58	4053.
33	OTHER	2527.	520.38	13150.
	TOTAL	3416198.	14.15	483502.

SOX

THETA = 8.74

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	47636.	156.75	74670.
24	BITUMINOUS COAL	13997368.	9.14	1279982.
25	LIGNITE	58896.	140.97	83028.
26	RESIDUAL OIL	1168726.	31.65	369860.
27	DISTILLATE OIL	21026.	235.94	49609.
28	NATURAL GAS	11410.	320.29	36545.
29	PROCESS GAS	10160.	339.42	34485.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	0.	---	---
33	OTHER	2080.	750.15	15603.
	TOTAL	15317302.	8.74	1338974.

NOX

THETA = 12.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	12831.	257.75	33073.
24	BITUMINOUS COAL	3437582.	15.75	541332.
25	LIGNITE	757295.	33.55	254080.
26	RESIDUAL OIL	531873.	40.03	212932.

27	DISTILLATE OIL	19392.	209.67	40658.
28	NATURAL GAS	603619.	37.58	226839.
29	PROCESS GAS	3105.	523.97	16269.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	200.	2064.54	4129.
33	OTHER	0.	---	---
	TOTAL	5365897.	12.60	676330.

HC

THETA = 87.15

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	152.	2464.16	3746.
24	BITUMINOUS COAL	47146.	139.92	65965.
25	LIGNITE	0.	---	---
26	RESIDUAL OIL	10734.	293.23	31475.
27	DISTILLATE OIL	389.	1540.34	5992.
28	NATURAL GAS	62955.	121.08	76226.
29	PROCESS GAS	102.	3008.09	3068.
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	50.	4296.41	2148.
33	OTHER	0.	---	---
	TOTAL	121528.	87.15	105908.

CO

THETA = 25.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
23	ANTHRACITE COAL	3417.	1079.05	36871.
24	BITUMINOUS COAL	151896.	161.84	245832.
25	LIGNITE	5895000.	25.98	1531465.
26	RESIDUAL OIL	215.	4301.76	9249.
27	DISTILLATE OIL	7.	10000.00	700.
28	NATURAL GAS	1123.	1882.24	21138.
29	PROCESS GAS	0.	---	---
30	COKE	0.	---	---
31	BAGASSE	0.	---	---
32	SOLID WASTE/COAL	40.	9973.22	3989.
33	OTHER	0.	---	---
	TOTAL	6051698.	25.64	1551687.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
POINT SOURCES

DRIVER TABLE 25

PARTICULATES

THETA = 20.93

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	10088.	260.45	26274.
41	BITUMINOUS COAL	1233810.	23.55	290570.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	54042.	112.53	60812.
49	DISTILLATE OIL	23899.	169.21	40440.
52	NATURAL GAS	75866.	94.97	72053.
55	PROCESS GAS	10885.	250.73	27292.
58	COKE	1143.	773.75	8844.
61	WOOD	147086.	68.21	100326.
63	LIQUID PETROL GAS	256.	1634.96	4185.
65	BAGASSE	0.	---	---
67	OTHER	5066.	367.53	18619.
	TOTAL	1562141.	20.93	326954.

SOX

THETA = 18.03

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	23698.	222.24	52667.
41	BITUMINOUS COAL	2644058.	21.04	556309.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	759386.	39.26	298134.
49	DISTILLATE OIL	34578.	183.98	63618.
52	NATURAL GAS	30178.	196.94	59433.
55	PROCESS GAS	94790.	111.12	105332.
58	COKE	1706.	828.31	14131.
61	WOOD	9695.	347.46	33686.
63	LIQUID PETROL GAS	24.	6983.54	1676.
65	BAGASSE	0.	---	---
67	OTHER	3341.	591.89	19775.
	TOTAL	3601454.	18.03	649262.

NOX

THETA = 18.66

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
38	ANTHRACITE COAL	6151	372.28	22899

41	BITUMINOUS COAL	582521.	38.25 222840.
43	LIGNITE	0.	--- ---
46	RESIDUAL OIL	166784.	71.49 119238.
49	DISTILLATE OIL	103645.	90.69 93996.
52	NATURAL GAS	1483016.	23.98 355557.
55	PROCESS GAS	8295.	320.57 26592.
58	COKE	0.	--- ---
61	WOOD	97072.	93.71 90967.
63	LIQUID PETROL GAS	1703.	707.51 12049.
65	BAGASSE	0.	--- ---
67	OTHER	237.	1896.54 4495.
	TOTAL	2449424.	18.66 456950.

HC

THETA = 64.33

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
38	ANTHRACITE COAL	56.	4059.72	2273.
41	BITUMINOUS COAL	17106.	232.28	39734.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	8934.	321.42	28715.
49	DISTILLATE OIL	4942.	432.15	21357.
52	NATURAL GAS	170225.	73.63	125343.
55	PROCESS GAS	58.	3989.11	2314.
58	COKE	0.	---	---
61	WOOD	21104.	209.13	44134.
63	LIQUID PETROL GAS	561.	1282.65	7196.
65	BAGASSE	0.	---	---
67	OTHER	29.	5641.45	1636.
	TOTAL	223015.	64.33	143469.

CO

THETA = 212.08

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	TONS / YR
38	ANTHRACITE COAL	1745.	1509.97	26349.
41	BITUMINOUS COAL	53929.	271.62	146479.
43	LIGNITE	0.	---	---
46	RESIDUAL OIL	605.	2564.41	15515.
49	DISTILLATE OIL	329.	3477.51	11441.
52	NATURAL GAS	4634.	926.59	42938.
55	PROCESS GAS	2.	10000.00	200.
58	COKE	0.	---	---
61	WOOD	19487.	451.85	83052.
63	LIQUID PETROL GAS	1.	10000.00	100.
65	BAGASSE	0.	---	---
67	OTHER	7723.	717.75	55432.
	TOTAL	88455.	212.08	187597.

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COMM-INSTITUTIONAL FUEL
POINT SOURCES

DRIVER TABLE 26

PARTICULATES

THETA = 87.61

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	236.	1702.83	4019.
77	BITUMINOUS COAL	58973.	107.72	63526.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	7730.	297.53	22999.
85	DISTILLATE OIL	743.	959.69	7131.
88	NATURAL GAS	20888.	181.00	37807.
91	WOOD	586.	1080.63	6332.
93	LIQUID PETROL GAS	2.	10000.00	200.
95	OTHER	0.	---	---
	TOTAL	89158.	87.61	78110.

B-111
G-111

SOX

THETA = 81.53

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	1331.	937.76	12482.
77	BITUMINOUS COAL	86897.	116.06	100852.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	80474.	120.60	97053.
85	DISTILLATE OIL	4355.	518.43	22577.
88	NATURAL GAS	2965.	628.30	18629.
91	WOOD	49.	4887.46	2395.
93	LIQUID PETROL GAS	0.	---	---
95	OTHER	0.	---	---
	TOTAL	176071.	81.53	143557.

NOX

THETA = 71.92

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	86.	3148.39	2708.
77	BITUMINOUS COAL	17330.	221.79	38436.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	20031.	206.29	41323.
85	DISTILLATE OIL	2611.	571.39	14919.
88	NATURAL GAS	124134.	82.87	102869.
91	WOOD	625.	1167.88	7299.

93	LIQUID PETROL GAS	10.	9232.89	923.
95	OTHER	0.	---	---
	TOTAL	164827.	71.92	118536.

HC

THETA = 283.78

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	2.	10000.00	200.
77	BITUMINOUS COAL	1657.	746.33	12367.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	954.	983.59	9383.
85	DISTILLATE OIL	132.	2644.26	3490.
88	NATURAL GAS	8575.	328.07	28132.
91	WOOD	140.	2567.59	3595.
93	LIQUID PETROL GAS	1.	10000.00	100.
95	OTHER	0.	---	---
	TOTAL	11461.	283.78	32524.

CO

THETA = 392.67

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
74	ANTHRACITE COAL	114.	5907.51	6735.
77	BITUMINOUS COAL	4882.	902.73	44071.
79	LIGNITE	0.	---	---
82	RESIDUAL OIL	84.	6882.04	5781.
85	DISTILLATE OIL	10.	10000.00	1000.
88	NATURAL GAS	20585.	439.62	90497.
91	WOOD	125.	5641.60	7052.
93	LIQUID PETROL GAS	2.	10000.00	200.
95	OTHER	0.	---	---
	TOTAL	25802.	392.67	101317.

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FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ELECTRIC GENERATION

DRIVER TABLE 27

PARTICULATES

THETA = 771.06

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	1043.	809.65	8445.
106	NATURAL GAS	13.	7252.13	943.
107	DIESEL	94.	2696.96	2535.
108	OTHER	0.	---	---
	TOTAL	1150.	771.06	8867.

SOX

THETA = 675.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	2371.	702.61	16659.
106	NATURAL GAS	0.	---	---
107	DIESEL	196.	2443.73	4790.
108	OTHER	0.	---	---
	TOTAL	2567.	675.26	17334.

NOX

THETA = 242.48

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	8287.	320.72	26578.
106	NATURAL GAS	3523.	491.89	17329.
107	DIESEL	2687.	563.23	15134.
108	OTHER	0.	---	---
	TOTAL	14497.	242.48	35153.

HC

THETA = 1669.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	62.	3858.35	2392.
106	NATURAL GAS	0.	---	---
107	DIESEL	269.	1852.35	4983.
108	OTHER	0.	---	---
	TOTAL	331.	1669.88	5527.

CO

THETA = 1518.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
105	DISTILLATE OIL	92.	6576.15	6050.
106	NATURAL GAS	0.	---	---
107	DIESEL	1634.	1560.41	25497.
108	OTHER	0.	---	---
	TOTAL	1726.	1518.26	26205.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
INDUSTRIAL FUEL

DRIVER TABLE 28

PARTICULATES

THETA = 692.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	86.	2819.84	2425.
112	NATURAL GAS	1285.	729.50	9374.
113	GASOLINE	9.	8716.72	785.
114	DIESEL FUEL	48.	3774.45	1812.
115	OTHER	0.	---	---
	TOTAL	1428.	692.01	9882.

SOX

THETA = 387.40

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	408.	1693.65	6910.
112	NATURAL GAS	7299.	400.43	29227.
113	GASOLINE	4.	10000.00	400.
114	DIESEL FUEL	87.	3667.70	3191.
115	OTHER	0.	---	---
	TOTAL	7798.	387.40	30210.

NOX

THETA = 32.02

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	920.	962.59	8856.
112	NATURAL GAS	828953.	32.07	265829.
113	GASOLINE	168.	2252.59	3784.
114	DIESEL FUEL	1245.	827.47	10302.
115	OTHER	0.	---	---
	TOTAL	831286.	32.02	266203.

HC

THETA = 180.62

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	35.	5135.28	1797.
112	NATURAL GAS	27637.	182.75	50506.
113	GASOLINE	491.	1371.06	6732.
114	DIESEL FUEL	128.	2685.30	3437.
115	OTHER	0.	---	---
	TOTAL	28291.	180.62	51100.

CO

THETA = 562.11

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
111	DISTILLATE OIL	212.	4332.09	9184.
112	NATURAL GAS	10423.	617.89	64396.
113	GASOLINE	1228.	1799.98	22104.
114	DIESEL FUEL	729.	2336.16	17031.
115	OTHER	0.	---	---
	TOTAL	12592.	562.11	70780.

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SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
COMM-INSTITUTIONAL

DRIVER TABLE 29

PARTICULATES

THETA = 3593.26

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	47.	3815.73	1793.
119	OTHER	6.	10000.00	600.
	TOTAL	53.	3593.26	1904.

SOX

THETA = 3438.46

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	97.	3473.72	3370.
119	OTHER	2.	10000.00	200.
	TOTAL	99.	3438.46	3404.

NOX

THETA = 797.90

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	1328.	801.20	10640.
119	OTHER	11.	8803.21	965.
	TOTAL	1339.	797.90	10684.

HC

THETA = 2549.49

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	133.	2634.34	3504.
119	OTHER	9.	10000.00	900.
	TOTAL	142.	2549.49	3620.

CO

THETA = 2214.91

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
118	DIESEL	808.	2219.91	17930.
119	OTHER	3.	10000.00	300.
	TOTAL	811.	2214.91	17963.

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DRIVER TABLE 30

SOURCE HIERARCHY
FUEL COMBUSTION
INTERNAL COMBUSTION (POINT)
ENGINE-TESTING

PARTICULATES

THETA = 1455.54

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	172.	1994.63	3431.
123	OTHER	151.	2128.81	3215.
	TOTAL	323.	1455.54	4701.

SOX

THETA = 4031.55

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	72.	4031.95	2903.
123	OTHER	0.	---	---
	TOTAL	72.	4031.95	2903.

NOX

THETA = 1465.35

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	397.	1465.35	5817.
123	OTHER	0.	---	---
	TOTAL	397.	1465.35	5817.

HC

THETA = 1564.69

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	377.	1564.69	5899.
123	OTHER	0.	---	---
	TOTAL	377.	1564.69	5899.

CO

THETA = 2057.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
122	AIRCRAFT	940.	2057.32	19339.
123	OTHER	0.	---	---
	TOTAL	940.	2057.32	19339.

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SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
RESIDENTIAL FUEL (AREA)

DRIVER TABLE 31

PARTICULATES

THETA = 50.83

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	12344.	235.45	29064.
16	BITUMINOUS COAL	79062.	93.03	73555.
17	DISTILLATE OIL	72879.	96.90	70620.
18	RESIDUAL OIL	295.	1523.05	4493.
19	NATURAL GAS	47927.	119.49	57268.
20	WOOD	52377.	114.30	59868.
	TOTAL	264884.	50.83	134634.

SOx

THETA = 40.12

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	32313.	190.32	61499.
16	BITUMINOUS COAL	307600.	61.69	189747.
17	DISTILLATE OIL	382336.	55.33	211545.
18	RESIDUAL OIL	2417.	695.89	16820.
19	NATURAL GAS	1513.	879.55	13308.
20	WOOD	1048.	1056.82	11075.
	TOTAL	727227.	40.12	291753.

NOX

THETA = 58.32

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3703.	479.80	17767.
16	BITUMINOUS COAL	11859.	268.11	31795.
17	DISTILLATE OIL	87454.	98.73	86343.
18	RESIDUAL OIL	513.	1289.07	6613.
19	NATURAL GAS	126125.	82.21	103690.
20	WOOD	20951.	201.71	42261.
	TOTAL	250605.	58.32	146161.

HC

THETA = 84.78

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	3086.	546.88	16877.
16	BITUMINOUS COAL	79062.	108.05	85423.
17	DISTILLATE OIL	21864.	205.46	44921.
18	RESIDUAL OIL	38.	4928.30	1873.
19	NATURAL GAS	20180.	213.86	43157.
20	WOOD	4190.	469.33	19665.
	TOTAL	128420.	84.78	108869.

CO

THETA = 84.44

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
15	ANTHRACITE COAL	111094.	189.24	210238.
16	BITUMINOUS COAL	355781.	105.75	376293.
17	DISTILLATE OIL	36439.	330.43	120406.
18	RESIDUAL OIL	3.	10000.00	300.
19	NATURAL GAS	50450.	280.82	141676.
20	WOOD	4190.	974.45	40829.
	TOTAL	557957.	84.44	471158.

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FUEL COMBUSTION
EXTERNAL COMBUSTION
INDUSTRIAL FUEL
AREA SOURCES

DRIVER TABLE 37

PARTICULATES

THETA = 22.01

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	1350782.	22.51	304032.
45	RESIDUAL OIL	13156.	228.07	30005.
48	DISTILLATE OIL	24531.	167.02	40972.
51	NATURAL GAS	22282.	175.25	39048.
54	PROCESS GAS	6.	10000.00	600.
57	COKE	0.	---	---
60	WOOD	1460.	684.62	9995.
	TOTAL	1412217.	22.01	310869.

SOX

THETA = 31.22

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	903767.	35.99	325244.
45	RESIDUAL OIL	48799.	154.87	75576.
48	DISTILLATE OIL	247475.	68.77	170195.
51	NATURAL GAS	743.	1255.12	9326.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	29.	6353.04	1842.
	TOTAL	1200813.	31.22	374903.

NOX

THETA = 40.64

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	175953.	69.60	122471.
45	RESIDUAL OIL	52623.	127.28	66977.
48	DISTILLATE OIL	63994.	115.42	73859.
51	NATURAL GAS	222816.	61.85	137819.
54	PROCESS GAS	71.	3465.03	2460.
57	COKE	0.	---	---
60	WOOD	584.	1208.18	7056.
	TOTAL	516041.	40.64	209739.

HC

THETA = 117.19

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	11730.	280.51	32903.
45	RESIDUAL OIL	2631.	592.28	15583.
48	DISTILLATE OIL	3200.	537.05	17186.
51	NATURAL GAS	49515.	136.53	67602.
54	PROCESS GAS	12.	8770.00	1052.
57	COKE	0.	---	---
60	WOOD	117.	2808.65	3286.
	TOTAL	67205.	117.19	78757.

CO

THETA = 403.30

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
37	ANTHRACITE COAL	0.	---	---
40	BITUMINOUS COAL	23460.	411.81	96610.
45	RESIDUAL OIL	175.	4768.02	8344.
48	DISTILLATE OIL	213.	4321.82	9205.
51	NATURAL GAS	495.	2835.01	14033.
54	PROCESS GAS	0.	---	---
57	COKE	0.	---	---
60	WOOD	117.	5831.78	6823.
	TOTAL	24460.	403.30	98647.

WEIGHTED SENSITIVITY ANALYSIS REPORT
NATIONAL EMISSIONS DATA SYSTEM
ENVIRONMENTAL PROTECTION AGENCY

NATIONWIDE EMISSIONS REPORT
UNITED STATES

RUN DATE: MAY 11, 1973
EMISSIONS AS OF: APRIL 19, 1973

SOURCE HIERARCHY
FUEL COMBUSTION
EXTERNAL COMBUSTION
COMM-INSTITUTIONAL FUEL
AREA SOURCES

DRIVER TABLE 33

PARTICULATES

THETA = 49.88

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	504.	1165.23	5873.
76	BITUMINOUS COAL	144322.	68.86	99378.
81	RESIDUAL OIL	51487.	115.29	59355.
84	DISTILLATE OIL	60861.	106.04	64535.
87	NATURAL GAS	17737.	196.42	34839.
90	WOOD	102.	2590.16	2642.
	TOTAL	275008.	49.88	137183.

SOX

THETA = 33.60

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	581.	1419.36	8246.
76	BITUMINOUS COAL	221777.	72.65	161116.
81	RESIDUAL OIL	596181.	44.31	264161.
84	DISTILLATE OIL	217620.	73.30	159672.
87	NATURAL GAS	560.	1445.73	8096.
90	WOOD	2.	10000.00	200.
	TOTAL	1036921.	33.60	348380.

NOX

THETA = 41.39

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	221.	1964.00	4340.
76	BITUMINOUS COAL	26351.	179.86	47395.
81	RESIDUAL OIL	134300.	79.67	106998.
84	DISTILLATE OIL	243443.	59.18	144057.
87	NATURAL GAS	93352.	95.56	89207.
90	WOOD	41.	4559.79	1870.
	TOTAL	497708.	41.39	205980.

HC

THETA = 169.58

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	4.	10000.00	400.
76	BITUMINOUS COAL	5728.	401.40	22992.
81	RESIDUAL OIL	6715.	370.73	24895.
84	DISTILLATE OIL	12172.	275.36	33517.
87	NATURAL GAS	7468.	351.55	26253.
90	WOOD	8.	10000.00	800.
	TOTAL	32095.	169.58	54425.

CO

THETA = 312.68

DATA NO.	SOURCE CLASSES	TONS / YR	ALLOWABLE ERROR PERCENT	ALLOWABLE ERROR TONS / YR
73	ANTHRACITE COAL	133.	5469.40	7274.
76	BITUMINOUS COAL	20623.	439.23	90582.
81	RESIDUAL OIL	448.	2980.07	13351.
84	DISTILLATE OIL	811.	2214.91	17963.
87	NATURAL GAS	18670.	461.63	86186.
90	WOOD	8.	10000.00	800.
	TOTAL	40693.	312.68	127241.

Appendix C

APPLIED ANALYSIS FOR THE VIRGINIA STATE CAPITAL AQCR

This appendix reports an application of the weighted sensitivity analysis technique developed in this project to a concrete air pollution control problem in the Commonwealth of Virginia. It is included in this final report to illustrate the versatility and wide range of applicability of a technique to air polution control activities requiring statistical analysis of emission inventories.

Technical Services Support

for Virginia State Capital AQCR

Task Order Number 16

Contract No. 68-02-0043

Preliminary Report: 4 June 1973

Prepared for the Environmental Protection Agency
Research Triangle Park, North Carolina 27711

Presented to EPA-Region III, Curtis Building
6th & Walnut Streets, Philadelphia, Pennsylvania 19106

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The objective of this Task is to assist the Commonwealth of Virginia's State Air Pollution Control Board in achieving an approvable implementation plan for attaining secondary standards for particulate matter by 1975 and maintaining them thereafter in the State Capital AQCR.

This Preliminary report is directed towards familiarization with the data, identification of problems, and development of projected air quality factors.

Preliminary Report: 4 June 73

1. Emissions Data

The emissions data discussed herein are based on the NEDS point source forms and area source data for AQCR 5 supplied by Virginia's State Air Pollution Control Board.

1.1 Point Sources

Data for several of these point sources presented anomalies (Table 2) when the emissions were computed using the emission factors in AP42. The magnitude of these anomalies were such as to increase the total point source emissions by a factor of three to four. No adjustment for these anomalies has been made in the emissions data.

The point sources in decreasing order of Particulate Matter Emissions (PME in tons per year) are listed in Table 1. The column marked "plant" designates the plant ID. The PME represents the sum of all the point (unit) sources for the indicated plant. The column marked "%" represents the portion of the total emissions (both point and area sources) emanating from the plant. "Cum %" is the accumulated portion of the total emissions emanating from the indicated plant and for all plants with greater emissions.

The "allowable error" is the portion (in percent) of the plant emissions that can be in error without jeapordizing an overall RMS error tolerance of 1% in the total emissions. This annotation to the data is intended to permit the determination of the adequacy of emission projections. With an overall RMS error tolerance of 1% we know by means of the Chebychev Inequality that with 95% confidence the predicted total emissions will not be in error by as much as 5%.

The emissions data in Table 1 are referenced to the year 1972. In order to project these emissions to 1975 it is necessary to predict the change in industrial activity and to apply regulations in effect at that time.

Changes in industrial activity used herein are based on changes in industrial employment. Projections of industrial employment were obtained from the US Economy in 1980, A summary of BLS Projections, Bulletin 1673 (1970)

According to data obtained from the Statistical Abstract of the US 1972 industrial employment between 1960 and 1965 grew at an average rate of 2.4% per year. Virginia's share of this growth differed from its proportionate share by less than 1.2% of the total net growth. Between 1965 and 1970 industrial employment grew at an average rate of 3.2% per year. Virginia's share of this growth differed from its proportionate share by 0.5% of the total net growth. Between 1970 and 1971 industrial employment grew at the rate of .125%. Virginia's share of this growth differed from its proportionate share by 36% of the total net growth.

Ignoring Virginia's variation in growth rate would yield an error of 7.6% (1960-1965), 4.1% (1960-1965), and 2% (1970-1971). Assuming that this trend will continue thru 1975 then the assumption that Virginia's employment will grow at the same rate as the nation's will imply an error not greater than 2% of Virginia's employment.

Table 3 indicates by industrial area the industrial employment growth data obtained from the US Economy in 1980. The column marked "EXP 72-75 Growth %" is the expected growth of industrial employment by SIC categories. The column marked "MAX ERROR %" is the maximum deviation of the growth projection from among the several growth rates indicated in the US Economy in 1980. An exception is the growth for SIC 28; the error associated with this value as obtained from the US Economy in 1980 was too great to be useful in AQCR 5. Data from Virginia Facts and Figures '72 were used to provide a projection for SIC 28 with a workable error.

Using the mix of industries indicated in Projections to 1980 for Virginia Metropolitan Areas (Aug 67) Richmond industry is expected to grow by 3.4%, Petersburg-Hopewell-Colonial Heights industry is expected to grow 2.2%, and the weighted average implies a growth of 3.1% from 1972 to 1975.

The growth factors exhibited in Table 3 applied to the emissions of Table 1 are presented in Table 4 in order of decreasing Particulate Matter Emissions (PME) by plant for 1972. Those plants not listed in Table 4 are expected to grow in emissions by less than half a ton assuming a 3.1% growth. The indicated growth in emissions does not take into account the application of regulations that can be expected to be in effect at that time.

1.2 Area Sources

Table 5 indicates the allowable error tolerance (percent) by grid in order to achieve a total RMS error of 1% in the total (points and area) emissions.

The growth projections for area sources are based on population growth estimates. Several such projections by jurisdiction are shown in Table 6. In Table 5 we note that the smallest tolerable error is 6.8% in grid 38. The only expected population error that exceeds this is for Greensville County. However, Greensville is involved only among the grids 100 thru 108 for which the smallest error tolerance required is 17%. Thus the accuracies obtainable are consistent with the 1% RMS error goal for total emissions.

The population growth factors distributed by grid are indicated in Table 7.

Table 8 exhibits the computations for the application of these growth factors to the emissions from the grids. The correction for automobile emissions in 1975 (Column 4) is based on the assumed fraction (14.6%) of model year 1975 cars in the automobile population. This fraction is assumed to be the same as that for the nation. The effect is to reduce automobile Particulate Matter Emissions by 9.8358%.

Table 8 assumes that the area emissions provided by the State Air Pollution Control Board are based on 1970 population data and, hence, must be projected 5 years. Such an assumption may be in error; Table 9 adjusts the area emissions for a three year projection.

1.3 Emission Inventory Summary

No emissions inventory summary computer run has been made. The only suitable program is in EPA's hands.

The total emissions from point sources on the 1972 NEDS forms are 16,824 tons/year. The anticipated growth to 1975 is an additional 524 tons/year (without applying regulations) for a total of 17,348 tons/year in 1975.

The total emissions from 1972 area sources are 7,264 tons/year. Expected growth is 188 tons/year (3 year projection) for a total of 7,453 tons/year (round off) in 1975.

The grand totals are:

1972	24,088 tons/year
growth	712
1975	24,801

2. Air Quality

Table 10 is a summary of the ambient air quality measurements for 1972. About half the stations exhibit annual geometric means in excess of secondary standards. More than a third of the stations have observed twenty-four hour averages ("Observed MAX") in excess of secondary standards. Moreover, if we use small sample theory to predict what the "maximum twenty-four hour average not to be exceeded more than once a year" would be ("Expected MAX") we find that two-thirds of the stations exceed secondary standards.

The greatest annual geometric mean is 96 $\mu g/m^3$ for station L158J. Using a background concentration of 30 $\mu g/m^3$ a reduction 54.5% is required in order to meet secondary standards. However, station L158J was used for only three quarters of the year. Station 154B was used in every quarter and has an annual geometric mean of 87 $\mu g/m^3$. This implies a reduction 47.4% is required to meet secondary standards.

The maximum 24hr averages for station L158J imply required reductions of 45.0% (Observed max) or 68.6% (Expected max). The maximum 24hr averages for station 154B imply required reductions of 58.5% (Observed max) or 73.6% (Expected max).

3. Strategies

3.1 Reduction Expected from Current Regulations

These reductions have not yet been applied to the projections on a point source by point source basis. However, Mr. Erskine of the State Air Pollution Control Board estimates about a 55% reduction from industrial point sources due to regulations. Thus the 17,348 tons/year (1975) of point source emissions can be expected to be reduced to 7,807 tons/year by regulation. Adding the area source total of 7,453 tons/year (1975) yields a total of 15,260 tons/year. This produces the reduction of

(24,088-15,260)/24,088=36.6%

This alone does not appear to be sufficient to improve air quality to meet secondary standards.

3.2 Reduction of Background

One of the problems of achieving secondary standards is the high (30 $\mu g/m^3$) background concentration. Although background is intrinsically uncontrollable it may be modified by more precise calibrations relating emissions to air quality.

Referring to the air quality data measured at station 154B the background would have to be reduced to:

13.1 $\mu g/m^3$ based on annual geometric mean
-142.2 $\mu g/m^3$ based on observed max
-430 $\mu g/m^3$ based on expected max

Referring to the air quality data observed at station L158J the background would have to be reduced to:

-2.5	$\mu g/m^3$	based on annual grometric mean
-20	$\mu g/m^3$	based on observed max
-303	$\mu g/m^3$	based on expected max

Thus reducing the background concentration alone will not achieve secondary standards.

3.3 Effect of Eliminating Anomalies

Assuming that the anomalies described in Table 2 can be eliminated by increasing 85% of the emissions by a factor of 3.5 then the total point sources would increase by a factor of 3.13. Then

52,659	Adjusted point sources 1972
+ 1,638	3.11% expected growth
54,297	
-29,963	Less 55% reduction due to regulations
24,434	Net point sources 1975
+ 7,453	Expected area sources 1975
31,887	Expected 1975 total emissions

52,659	Adjusted point sources 1972
+ 7,264	Area sources 1972
59,923	1972 emissions

Expected reduction

(59,923-31,887)/59,923= 46.8%

This is still too small to satisfy rollback requirements.

3.4 Simulation Modeling

None of the strategies discussed above quite manages to satisfy secondary standards. Simulation modeling with IPP offers the best hope for determining an effective strategy.

Wind roses have been obtained from the State Air Pollution Control Board. The IPP input forms are now being coded.

The first IPP run will be designed for calibration and determination of background using the 1972 NEDS data and 1972 area sources.

The second IPP run will exhibit the effects of current regulations and expected growth as detailed above.

An additional simulation may be run to determine the background due to extraregional sources. These sources are indicated in Table 11; however the emissions may be obsolete.

Table 1
1/5

Point Source Particulate Emissions
1972 Va. AQCR 5

plant	PME	%	cum. %	Allowable error
370	3078	12.7217	12.7217	2.80
393	1287	5.3193	18.0410	4.34
217	1275	5.2697	23.3106	4.36
232	1105	4.5671	27.8777	4.68
253	1082	4.4720	32.3497	4.73
397	1008	4.1662	36.5159	4.90
231	623	2.5749	39.0908	6.23
396	537	2.2195	41.3103	6.71
305	505	2.0872	43.3975	6.92
49	480	1.9839	45.3814	7.10
429	474	1.9591	47.3405	7.14
400	399	1.6491	48.9896	7.79
431	327	1.3515	50.3411	8.60
52	307	1.2689	51.6099	8.86
266	260	1.0746	52.6845	9.65
399	255	1.0539	53.7385	9.74
333	218	.9010	54.6395	10.53
567	214	.8845	55.5240	10.63
69	152	.6282	56.1522	12.62
222	145	.5993	56.7515	12.92
252	145	.5993	57.3508	12.92
126	137	.5662	57.9170	13.29
303	132	.5456	58.4626	13.54
547	107	.4422	58.9049	15.04
33	103	.4257	59.3306	15.33
395	96	.3968	59.7273	15.88
264	94	.3885	60.1159	16.04
403	80	.3306	60.4465	17.39
31	79	.3265	60.7730	17.50
119	79	.3265	61.0995	17.50
356	76	.3141	61.4136	17.84
158	65	.2687	61.6823	19.29
223	63	.2604	61.9427	19.60
293	63	.2604	62.2031	19.60
272	59	.2439	62.4469	20.25
353	58	.2397	62.6866	20.42
283	53	.2191	62.9057	21.37
364	53	.2191	63.1247	21.37
8	52	.2149	63.3397	21.57
250	51	.2108	63.5505	21.78
99	47	.1943	63.7447	22.69
342	46	.1901	63.9348	22.93
298	45	.1860	64.1208	23.19
554	45	.1860	64.3068	23.19
83	43	.1777	64.4845	23.72
188	42	.1736	64.6581	24.00
249	31	.1281	64.7862	27.94
127	29	.1199	64.9061	28.88
336	29	.1199	65.0260	28.88
517	29	.1199	65.1458	28.88

Point Source Particulate Emissions
1972 Va. AQCR 5

Table 1
2/5

plant	PME	%	cum. %	Allowable error
45	28	.1157	65.2616	29.40
74	27	.1116	65.3731	29.94
97	26	.1075	65.4806	30.51
257	26	.1075	65.5881	30.51
60	25	.1033	65.6914	31.11
169	25	.1033	65.7947	31.11
251	25	.1033	65.8980	31.11
114	24	.0992	65.9972	31.75
39	23	.0951	66.0923	32.43
209	23	.0951	66.1874	32.43
355	23	.0951	66.2824	32.43
564	22	.0909	66.3734	33.16
133	20	.0827	66.4560	34.78
233	20	.0827	66.5387	34.78
540	20	.0827	66.6213	34.78
42	19	.0785	66.6999	35.68
535	18	.0744	66.7743	36.66
561	18	.0744	66.8487	36.66
565	18	.0744	66.9231	36.66
195	17	.0703	66.9933	37.73
385	17	.0703	67.0636	37.73
53	16	.0661	67.1297	38.89
210	16	.0661	67.1958	38.89
62	15	.0620	67.2578	40.16
100	15	.0620	67.3198	40.16
82	13	.0537	67.3736	43.14
61	12	.0496	67.4232	44.90
229	12	.0496	67.4728	44.90
261	12	.0496	67.5224	44.90
296	12	.0496	67.5720	44.90
309	12	.0496	67.6215	44.90
215	11	.0455	67.6670	46.90
351	11	.0455	67.7125	46.90
24	10	.0413	67.7538	49.19
46	10	.0413	67.7951	49.19
270	10	.0413	67.8365	49.19
600	10	.0413	67.8778	49.19
530	9	.0372	67.9150	51.85
553	9	.0372	67.9522	51.85
287	8	.0331	67.9853	54.99
416	8	.0331	68.0183	54.99
550	8	.0331	68.0514	54.99
10	7	.0289	68.0803	58.79
44	7	.0289	68.1093	58.79
90	7	.0289	68.1382	58.79
113	7	.0289	68.1671	58.79
203	7	.0289	68.1960	58.79
312	7	.0289	68.2250	58.79
366	7	.0289	68.2539	58.79
418	7	.0289	68.2828	58.79

Point Source Particlate Emissions
1972 Va. AQCR 5

Table 1
3/5

plant	PME	%	cum. %	Allowable error
522	7	.0289	68.3118	58.79
575	7	.0289	68.3407	58.79
589	7	.0289	68.3696	58.79
34	6	.0248	68.3944	63.50
40	6	.0248	68.4192	63.50
88	6	.0248	68.4440	63.50
260	6	.0248	68.4688	63.50
534	6	.0248	68.4936	63.50
118	5	.0207	68.5143	69.56
159	5	.0207	68.5350	69.56
289	5	.0207	68.5556	69.56
365	5	.0207	68.5763	69.56
486	5	.0207	68.5970	69.56
502	5	.0207	68.6176	69.56
586	5	.0207	68.6383	69.56
591	5	.0207	68.6590	69.56
27	4	.0165	68.6755	77.77
41	4	.0165	68.6920	77.77
208	4	.0165	68.7086	77.77
235	4	.0165	68.7251	77.77
258	4	.0165	68.7416	77.77
483	4	.0165	68.7581	77.77
568	4	.0165	68.7747	77.77
592	4	.0165	68.7912	77.77
14	3	.0124	68.8036	89.81
55	3	.0124	68.8160	89.81
80	3	.0124	68.8284	89.81
136	3	.0124	68.8408	89.81
157	3	.0124	68.8532	89.81
205	3	.0124	68.8656	89.81
245	3	.0124	68.8780	89.81
341	3	.0124	68.8904	89.81
384	3	.0124	68.9028	89.81
606	3	.0124	68.9152	89.81
29	2	.0083	68.9235	109.99
38	2	.0083	68.9317	109.99
43	2	.0083	68.9400	109.99
56	2	.0083	68.9483	109.99
81	2	.0083	68.9565	109.99
84	2	.0083	68.9648	109.99
94	2	.0083	68.9731	109.99
98	2	.0083	68.9813	109.99
180	2	.0083	68.9896	109.99
190	2	.0083	68.9979	109.99
262	2	.0083	69.0061	109.99
275	2	.0083	69.0144	109.99
281	2	.0083	69.0227	109.99
292	2	.0083	69.0309	109.99
300	2	.0083	69.0392	109.99
379	2	.0083	69.0475	109.99

Point Source Particulate Emissions 4/5
1972 Va. AQCR 5

plant	PME	%	cum. %	Allowable error
382	2	.0083	69.0557	109.99
383	2	.0083	69.0640	109.99
406	2	.0083	69.0723	109.99
412	2	.0083	69.0805	109.99
445	2	.0083	69.0888	109.99
481	2	.0083	69.0971	109.99
520	2	.0083	69.1053	109.99
576	2	.0083	69.1136	109.99
594	2	.0083	69.1219	109.99
597	2	.0083	69.1301	109.99
599	2	.0083	69.1384	109.99
609	2	.0083	69.1467	109.99
611	2	.0083	69.1549	109.99
622	2	.0083	69.1632	109.99
632	2	.0083	69.1715	109.99
667	2	.0083	69.1797	109.99
669	2	.0083	69.1880	109.99
675	2	.0083	69.1963	109.99
4	1	.0041	69.2004	155.55
21	1	.0041	69.2045	155.55
22	1	.0041	69.2087	155.55
32	1	.0041	69.2128	155.55
51	1	.0041	69.2169	155.55
57	1	.0041	69.2211	155.55
58	1	.0041	69.2252	155.55
59	1	.0041	69.2293	155.55
79	1	.0041	69.2335	155.55
85	1	.0041	69.2376	155.55
95	1	.0041	69.2417	155.55
122	1	.0041	69.2459	155.55
143	1	.0041	69.2500	155.55
148	1	.0041	69.2541	155.55
150	1	.0041	69.2583	155.55
164	1	.0041	69.2624	155.55
167	1	.0041	69.2665	155.55
173	1	.0041	69.2707	155.55
179	1	.0041	69.2748	155.55
196	1	.0041	69.2789	155.55
199	1	.0041	69.2831	155.55
230	1	.0041	69.2872	155.55
237	1	.0041	69.2913	155.55
279	1	.0041	69.2955	155.55
294	1	.0041	69.2996	155.55
302	1	.0041	69.3037	155.55
314	1	.0041	69.3079	155.55
318	1	.0041	69.3120	155.55
347	1	.0041	69.3161	155.55
358	1	.0041	69.3203	155.55
368	1	.0041	69.3244	155.55
373	1	.0041	69.3285	155.55

1972 Va. AQCR 5

plant	PME	%	cum. %	Allowable error
376	1	.0041	69.3326	155.55
386	1	.0041	69.3368	155.55
389	1	.0041	69.3409	155.55
398	1	.0041	69.3450	155.55
401	1	.0041	69.3492	155.55
404	1	.0041	69.3533	155.55
417	1	.0041	69.3574	155.55
420	1	.0041	69.3616	155.55
421	1	.0041	69.3657	155.55
425	1	.0041	69.3698	155.55
438	1	.0041	69.3740	155.55
440	1	.0041	69.3781	155.55
450	1	.0041	69.3822	155.55
453	1	.0041	69.3864	155.55
454	1	.0041	69.3905	155.55
457	1	.0041	69.3946	155.55
471	1	.0041	69.3988	155.55
476	1	.0041	69.4029	155.55
484	1	.0041	69.4070	155.55
497	1	.0041	69.4112	155.55
506	1	.0041	69.4153	155.55
513	1	.0041	69.4194	155.55
520	1	.0041	69.4236	155.55
529	1	.0041	69.4277	155.55
533	1	.0041	69.4318	155.55
541	1	.0041	69.4360	155.55
542	1	.0041	69.4401	155.55
544	1	.0041	69.4442	155.55
546	1	.0041	69.4484	155.55
548	1	.0041	69.4525	155.55
556	1	.0041	69.4566	155.55
557	1	.0041	69.4608	155.55
562	1	.0041	69.4649	155.55
570	1	.0041	69.4690	155.55
578	1	.0041	69.4732	155.55
581	1	.0041	69.4773	155.55
583	1	.0041	69.4814	155.55
590	1	.0041	69.4856	155.55
593	1	.0041	69.4897	155.55
596	1	.0041	69.4938	155.55
603	1	.0041	69.4980	155.55
604	1	.0041	69.5021	155.55
608	1	.0041	69.5062	155.55
610	1	.0041	69.5104	155.55
621	1	.0041	69.5145	155.55
625	1	.0041	69.5186	155.55
635	1	.0041	69.5228	155.55
642	1	.0041	69.5269	155.55
657	1	.0041	69.5310	155.55
663	1	.0041	69.5352	155.55

Table 2

Particulate Emissions
1972 Va. AQCR 5

Emission Source Anomalies

County	Plant	Unit	PM NEDS	Emissions AP42
1460	217	2	1125	5250
1400	253	1	1070	113
2660	393	3	760	1216
2660	393	2	520	702
1460	49	2	425	8
1340	305	2	351	17881
1500	231	3	270	36
720	396	6	187	599
1340	305	1	124	17881
1560	363	1	120	345
720	397	2	97	45
2500	333	2	97	279
2660	364	1	53	69
720	223	3	50	82
2500	333	1	50	146

Table 3

Basis for Point Source Emissions Projections
(Industrial Employment)

1/2

GROUP	INDUSTRY 2 DIGIT SIC	3 DIGIT SIC	EXP 72 - 75 Growth %	MAX Error %
A			- 7.05	0.5
	01-07		- 8.2	.7
	08,09		3.0	.3
B			- 2.5	0.2
	10	101	- 2.0	1.1
		102-109	1.8	0.6
	11,12		- 8.6	.7
	13		- 3.0	.3
	14		2.3	.8
	15-17		7.2	.9
D			3.6	1.2
	19		.9	8.7
	20		- 1.2	1.8
	21		- 6.6	.9
	22		- .1	3.2
	23		3.6	1.2
	24	241-243	1.0	0.8
		244	-13.2	2.4
		249	1.0	0.8
	25		7.6	2.5
	26		3.7	1.6
	27		3.9	0.6
*	28		3.2	1.1
	29		- 4.4	1.3
	30		8.8	1.3
	31	311,312	- 6.6	0
		313,314	- 1.2	.9
		315-317	- 6.6	0
	32	321-323	4.3	.8
		324-329	5.6	1.4
	33	331,332	- 1.8	.6
		333-336	6.4	.8
		339	- 1.8	.6
	34		3.4	3.1
	35		5.6	4.9
	36		7.4	9.4
	37		2.6	7.3
	38		6.0	3.3
	39		2.8	0.2

Table 3

Basis for Point Source Emissions Projections
(Industrial Employment)

2/2

GROUP	INDUSTRY 2 DIGIT SIC	3 DIGIT SIC	EXP 72 - 75 Growth %	MAX Error %
E				
	40-47		2.2	0.5
	48		5.3	2.9
	49		2.1	0.6
F	50-59		5.5	0.4
G	60-64		6.2	1.1
	65,66		3.8	0.5
	67		6.2	1.1
H	70,72		5.5	0.7
	73		13.0	0.7
	75		5.2	0.5
	76		5.5	0.7
	78,79		6.1	0.8
	80-86		10.0	1.4
	88		2.5	1.3
	89		10.0	1.4
I			9.1	1.4
	91		3.4	1.4
	92,93		10.6	1.4

Table based on Data From

"The US Economy in 1980, A Summary of BLS Projections",
Bulletin 1673, (1970) USGPO, Washington, D.C. 20402

Except SIC 28 which was based on data in

"Virginia Facts and Figures '72"
P. M. Ware, Commonwealth of Va., Governor's Office, Div. of Ind. Dev.
State Office Building, Richmond, Virginia 23219

Table 4

Point Source Emissions Projection
(Not Adjusted for Regulations)

Va. 1972 AQCR 5

County	Plant ID	1972 PME	SIC	1972-1975 Rate of Growth	1972-1975 PME	1975 PME
2500	370	3078	2631	3.7%	114	3192
2660	393	1287	3341	6.4%	82	1369
1460	217	1275	1459	2.3	29	1304
2500	232	1105	2818	4.2	46	1151
1400	253	1082	2661	3.7	40	1122
720	397	1008	2821	3.2	32	1040
1500	231	623	2871	3.2	20	643
720	396	537	4911	2.1	11	548
1340	305	505	3241	5.6	28	533
1460	49	480	2499	- 4.4	- 21	459
1340	429	474	1423	2.3	11	485
2660	400	399	1423	2.3	9	408
1340	431	327	1423	2.3	8	335
960	52	307	8061	10.0	31	338
1340	266	260	1423	2.3	6	266
1500	399	255	1423	2.3	6	261
2500	333	218	2819	3.2	7	225
3120	567	214	2421	1.0	21	235
2660	69	152	2111	- 6.6	- 10	142
960	222	145	1423	2.3	3	148
720	252	145	3341	6.4	9	154
2660	126	137	8061	10.0	14	151
1560	363	132	2819	3.2	4	136
1340	547	107	92XX	10.6	11	118
2660	33	103	7011	5.5	6	109
2660	395	96	4911	2.1	2	98
1400	264	94	3321	- 1.8	- 2	92
1460	403	80	1423	2.3	2	82
2660	31	79	2431	1.0	1	80
960	119	79	3411	3.4	3	82
2660	356	76	2631	3.7	3	79
2660	158	65	2442	-13.2	- 9	56
720	223	63	1423	2.3	1	64
2500	293	63	3391	- 1.8	- 1	62
2660	272	59	2042	- 1.2	- 1	58
1500	353	58	2042	- 1.2	- 1	57
1400	283	53	2431	1.0	1	54
2660	364	53	3321	- 1.8	- 1	52
720	8	52	2141	- 6.6	- 3	49
2500	250	51	2824	3.2	2	53
720	99	47	3341	6.4	3	50
2660	342	46	3251	5.6	3	49

Table 4 (Continued)

Point Source Emissions Projection
(Not Adjusted for Regulations)

VA. 1972 AQCR 5

County	Plant ID	1972 PME	SIC	1972-1975 Rate of Growth	1972-1975 PME	1975 PME
720	298	45	8221	10.0	5	50
720	554	45	2819	3.2	1	46
2660	83	43	2111	- 6.6	- 3	40
2660	188	42	2111	- 6.6	- 3	39
720	249	31	3352	6.4	2	33
720	127	29	91XX	3.4	1	30
3100	336	29	4911	2.1	1	30
2660	517	29	2621	3.7	1	30
2500	45	28	2951	- 4.4	- 1	27
2660	74	27	2111	- 6.6	- 2	25
960	97	26	2421	1.0	0	26
2660	257	26	3443	3.4	1	27
1340	60	25	2951	- 4.4	- 1	24
3120	169	25	2499	1.0	0	25
2360	251	25	2111	- 6.0	- 2	23
1500	114	24	1800	2.2	1	25
1500	39	23	2951	- 4.4	- 1	22
2660	209	23	8221	10.0	2	25
2660	355	23	2631	3.7	1	24
2500	564	22	91XX	3.4	1	23
2660	133	20	2141	- 6.6	- 1	19
720	233	20	2824	1.0	0	20
1500	540	20	8061	10.0	2	22
2500	42	19	2951	- 4.4	- 1	18
2100	535	18	2421	1.0	0	18
2660	561	18	1800	3.4	1	19
1400	565	18	2951	- 4.4	- 1	17
2660	195	17	2131	- 6.6	- 1	16
2660	385	17	1423	2.3	0	17
1400	53	16	3442	3.4	1	17
1460	210	16	2429	1.0	0	16

AREA SOURCES PREDICTION ERROR TOLERANCES

GRID	ERROR TOLERANCE %	GRID	ERROR TOLERANCE %	GRID	ERROR TOLERANCE %
1	37.4	42	19.6	83	23.3
2	29.7	43	17.3	84	16.0
3	28.9	44	16.6	85	22.2
4	26.2	45	10.7	86	35.3
5	20.4	46	26.3	87	48.4
6	37.3	47	15.3	88	27.4
7	30.9	48	14.7	89	15.2
8	16.6	49	28.5	90	19.4
9	52.6	50	25.2	91	28.7
10	28.2	51	21.6	92	18.4
11	23.3	52	17.3	93	47.4
12	14.2	53	53.0	94	23.5
13	28.2	54	62.0	95	17.2
14	50.4	55	9.9	96	15.3
15	28.2	56	24.1	97	20.5
16	21.2	57	30.0	98	27.2
17	23.2	58	44.0	99	46.9
18	17.0	59	31.8	100	24.0
19	11.7	60	11.5	101	21.1
20	12.8	61	13.2	102	41.5
21	28.8	62	31.8	103	42.4
22	13.8	63	22.7	104	17.0
23	17.9	64	29.2	105	89.5
24	16.0	65	29.8	106	37.7
25	18.3	66	40.2	107	28.0
26	17.2	67	12.5	108	48.3
27	31.5	68	40.8		
28	56.6	69	87.1		
29	22.5	70	35.1		
30	15.0	71	11.6		
31	16.3	72	45.8		
32	13.2	73	19.3		
33	13.2	74	42.6		
34	22.3	75	29.7		
35	18.2	76	16.4		
36	35.7	77	42.4		
37	24.6	78	15.9		
38	6.8	79	38.6		
39	10.4	80	24.7		
40	10.6	81	15.1		
41	11.3	82	14.4		

Table 6

POPULATION PROJECTIONS BY JURISDICTION

City/County	% Change* 1960-1970	Va Estimates % ** 1970-1975	Exponential Growth % 1970-1975	Shift/Share Estimates 1970-1975	Values (%) Adopted 1970-1975
Charles City	12.1	12.0	5.87	5.78	5.82%
Chesterfield	7.9	96.42	3.87	3.50	3.68
Colonial Heights	57.5	17.92	25.48	22.57	24.98
Dinwiddie	12.9	26.88	6.26	6.16	6.21
Goochland	9.4	54.78	4.55	4.30	4.42
Greensville	-40.6	12.0	-22.93	-45.98	-32.47
Hanover	36.0	30.29	16.56	16.02	16.29
Henrico	31.6	20.26	14.74	14.38	14.56
Hopewell	31.2	14.12	14.57	14.23	14.40
New Kent	17.7	12.0	8.49	8.51	8.50
Petersburg	- 1.8	9.77	- .90	- 2.50	- 1.50
Powhattan	14.1	45.09	6.82	6.74	6.78
Prince George	43.5	49.32	19.82	18.54	19.17
Richmond	13.5	-10.79	6.56	6.46	6.51
Surrey	- 5.4	12.0	- 2.74	- 5.08	- 3.73
Sussex	- 7.4	12.0	- 3.87	- 6.75	- 5.11

* From "1970 Census of Population; PC (V1)-48 Virginia," U. S. Department of Commerce, Bureau of the Census, December 1970

** From "Projections to 1980 for Virginia Metropolitan Areas," Governor's Office, Office of Administration, Division of Planning, Richmond, Va., August 1967

Table 7

POPULATION PROJECTIONS (1970-1975) BY GRID

VA AQCR 5

GRID	%	GRID	%	GRID	%
1	4.42	38	3.82	75	6.08
2	16.29	39	6.51	76	5.83
3	16.29	40	6.51	77	3.68
4	4.42	41	6.51	78	4.74
5	6.08	42	12.95	79	11.42
6	16.29	43	6.51	80	18.22
7	16.29	44	6.51	81	3.02
8	16.29	45	6.51	82	0.46
9	16.29	46	9.33	83	2.13
10	9.92	47	5.38	84	- 1.50
11	16.29	48	6.51	85	8.84
12	16.07	49	10.54	86	19.17
13	16.29	50	12.95	87	19.17
14	16.29	51	5.10	88	19.17
15	6.78	52	6.51	89	9.45
16	6.39	53	10.54	90	19.17
17	7.25	54	14.56	91	19.17
18	14.56	55	14.65	92	7.34
19	14.56	56	12.31	93	- 1.82
20	14.56	57	8.89	94	6.21
21	14.56	58	8.5	95	5.64
22	14.56	59	3.99	96	4.44
23	14.56	60	3.68	97	- 4.97
24	14.56	61	3.68	98	- 4.01
25	13.55	62	12.38	99	- 3.73
26	8.52	63	3.68	100	-19.83
27	14.56	64	8.03	101	- 5.11
28	15.42	65	14.56	102	- 5.11
29	8.12	66	10.19	103	-32.47
30	7.72	67	3.68	104	-32.47
31	8.52	68	3.68	105	-32.47
32	6.51	69	9.12	106	-32.47
33	8.12	70	5.23	107	-32.47
34	14.56	71	9.04	108	-32.47
35	16.03	72	7.16		
36	15.51	73	6.36		
37	3.99	74	7.83		

Table 8
Particulate Matter Emissions
Va. 1972 AQCR 5

EXPLANATORY NOTES FOR GRIDDED
AREA SOURCES TABLE

Column Number	Explanation
1	Grid Designation
2	1972 Vehicle Particulate Emissions
3	Expected Growth to 1975 of Vehicle Emissions
4	Correction to Growth for 1975 Automobiles
5	1972 Residential Fuel Emissions (PM)
6	Expected Growth to 1975 of Residential Fuel Emissions
7	1972 Commercial and Institutional Fuel Emissions (PM)
8	Expected Growth to 1975 of C&I Fuel Emissions
9	1972 Incineration Particulate Emissions
10	Expected Growth to 1975 of Incineration Emissions
11	1972 Open Burning Particulate Emissions
12	Expected Growth to 1975 of Open Burning Emissions
13	Total 1972 Particulate Emissions
14	Expected change to 1975 of Particulate Emissions
15	Expected 1975 Particulate Emissions

(Note: Projections Based on 1970 Population Base)

Table 8

GRIDDED AREA SOURCES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	9.13	.40	.94	4.19	.18	1.91	.08	1.30	.06	.80	.04	17.33	1.8	17.15
2	1.85	.30	.21	13.07	2.13	5.96	.97	4.05	.66	2.50	.41	27.43	4.26	31.69
3	25.60	4.17	2.93	1.74	.28	.79	.13	.54	.09	.33	.05	29.00	1.79	30.79
4	4.05	.18	.42	15.75	.70	7.19	.32	4.88	.22	.57	.03	32.44	1.03	33.47
5	26.03	1.58	2.72	16.45	1.00	7.51	.46	5.10	.31	3.13	.19	58.22	.82	59.04
6	5.17	.84	.59	6.24	1.02	2.85	.46	1.93	.31	1.19	.19	17.38	2.23	19.61
7	5.85	.95	.67	9.96	1.62	4.55	.74	3.08	.50	1.90	.31	25.34	3.45	28.79
8	49.03	7.99	5.61	20.45	3.33	9.33	1.52	6.33	1.03	3.90	.64	89.04	8.90	97.94
9	2.46	.40	.28	3.21	.52	1.47	.24	1.00	.16	.61	.10	8.75	1.14	9.89
10	14.17	1.41	1.53	8.32	.83	3.80	.38	2.59	.26	1.59	.16	30.47	1.51	31.98
11	6.41	1.04	.73	19.58	3.19	8.94	1.46	6.07	.99	3.72	.61	44.72	6.55	51.27
12	52.19	8.39	5.96	34.92	5.61	15.94	2.56	10.83	1.74	6.66	1.07	120.54	13.41	133.95
13	2.90	.47	.33	14.02	2.28	6.40	1.04	4.35	.71	2.68	.44	30.35	4.61	34.96
14	2.35	.38	.27	3.66	.60	1.67	.27	1.14	.19	0.70	.11	9.52	1.28	10.80
15	7.32	.50	.77	11.77	.80	5.37	.36	3.65	.25	2.24	.15	30.35	1.29	31.64
16	19.14	1.22	2.00	17.61	1.13	8.03	.51	5.45	.34	3.36	.21	53.59	1.42	55.01
17	9.11	.66	.96	18.26	1.32	8.33	.60	5.65	.41	3.48	.25	44.83	2.29	47.12
18	10.99	1.60	1.24	36.98	5.38	16.88	2.46	11.45	1.67	7.05	1.03	83.35	10.90	94.25
19	19.30	2.81	2.17	80.64	11.74	36.80	5.36	24.99	3.64	15.36	2.24	177.09	23.62	200.71
20	40.26	5.86	4.54	55.36	8.06	25.27	3.68	17.16	2.50	10.56	1.54	148.64	17.10	165.74
21	4.56	.66	.51	12.60	1.83	5.75	.84	3.90	.57	2.40	.35	29.21	3.74	32.95
22	7.79	1.13	.88	61.30	8.93	27.97	4.07	19.00	2.77	11.70	1.70	127.76	17.72	145.48
23	11.42	1.66	1.29	32.89	4.79	15.01	2.19	10.02	1.49	6.28	.91	75.80	9.75	85.55
24	22.36	3.26	2.52	37.09	5.40	16.93	2.47	11.49	1.67	7.08	1.03	94.95	11.31	[illegible]
25	31.99	4.33	3.57	20.77	2.81	9.48	1.28	6.43	0.87	3.97	.54	72.64	[illegible]	
26	25.85	2.20	2.76	28.44	2.42	12.98	1.11	8.81	.75	5.43	.46	81.51	4.19	85.70
27	.38	.06	.04	12.29	1.79	5.61	.82	3.81	.55	2.34	.34	24.43	3.51	27.94
28	3.17	.49	.36	2.23	.34	1.02	.16	.69	.11	.43	.07	7.54	.80	8.34
29	13.02	1.06	1.38	17.66	1.43	8.06	.65	5.47	.44	3.37	.27	47.58	2.48	50.06
30	24.68	1.91	2.62	42.65	3.29	19.46	1.50	13.21	1.02	8.14	.63	108.14	5.73	113.87

Table 8

GRIDDED AREA SOURCES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
31	34.23	2.92	- 3.65	28.92	2.46	13.20	1.12	8.97	.76	5.52	.47	90.84	4.09	94.93
32	41.08	2.67	- 4.30	50.18	3.27	22.90	1.49	15.55	1.01	9.57	.62	139.28	4.76	144.04
33	20.17	1.64	- 2.15	60.80	4.94	27.75	2.25	18.85	1.53	11.60	.94	139.17	9.15	148.32
34	13.02	1.90	- 1.47	18.26	2.66	8.33	1.21	5.65	.82	3.48	.51	48.74	5.63	54.37
35	15.37	2.46	- 1.75	29.30	4.70	13.37	2.14	9.08	1.46	5.59	.90	72.71	9.90	82.61
36	3.4	.53	- .39	7.95	1.23	3.63	.56	2.47	.38	1.51	.23	18.96	2.55	21.51
37	11.55	.46	- 1.18	14.49	.58	6.61	.26	4.49	.18	2.77	.11	39.91	.41	40.32
38	126.74	4.84	-12.94	198.94	7.60	90.78	3.47	61.65	2.36	37.93	1.45	516.04	6.78	522.82
39	31.01	2.02	- 3.25	98.56	6.42	44.97	2.93	30.55	1.99	18.78	1.22	223.87	11.33	235.20
40	52.24	3.40	- 5.47	82.94	5.40	37.85	2.46	25.70	1.67	15.82	1.03	214.55	8.49	223.04
41	43.83	2.85	- 4.59	74.47	4.85	33.98	2.21	23.08	1.50	14.23	.93	189.59	7.75	197.34
42	11.37	1.47	- 1.26	26.53	3.44	12.11	1.57	8.22	1.06	5.07	.66	63.30	6.93	70.23
43	14.34	.93	- 1.50	34.15	2.22	15.58	1.01	10.58	.69	6.51	.42	81.16	3.78	84.94
44	31.49	2.05	- 3.30	28.55	1.86	13.03	.85	8.86	.58	5.45	.35	87.38	2.39	89.77
45	35.26	2.30	- 3.69	89.56	5.83	40.87	2.66	27.75	1.81	17.07	1.11	210.51	10.02	220.53
46	11.33	1.06	- 1.22	12.15	1.13	5.55	.52	3.76	.35	2.32	.22	35.11	2.06	37.17
47	28.98	1.56	- 3.00	38.35	2.06	17.50	.94	11.88	.64	7.31	.39	104.2	2.59	106.79
48	19.60	1.28	- 2.05	47.16	3.07	21.52	1.40	14.63	.95	9.00	.59	111.91	5.24	117.15
49	11.95	1.26	- 1.30	9.15	.96	4.18	.44	2.84	.30	1.74	.18	29.86	1.85	31.71
50	6.86	.89	- .76	16.00	2.07	7.30	.95	4.97	.64	3.05	.39	38.18	4.18	42.36
51	12.05	.61	- 1.25	20.33	1.04	9.28	.47	6.30	.32	3.88	.20	51.84	1.40	53.24
52	18.06	1.18	- 1.89	32.31	2.10	14.74	.96	10.01	.65	6.17	.40	81.29	3.40	84.69
53	5.95	.63	- .65	1.36	.14	.62	.07	.42	.04	.26	.03	8.61	.26	8.87
54	1.02	.15	- .11	2.70	.39	1.23	.18	.84	.12	.51	.07	6.30	.80	7.10
55	69.43	10.17	- 7.83	91.05	13.34	41.55	6.09	28.22	4.13	17.37	2.54	247.62	28.44	276.06
56	24.78	3.05	- 2.74	8.56	1.05	3.91	.48	2.65	.33	1.64	.20	41.54	2.38	43.92
57	10.01	.89	- 1.07	8.60	.76	3.92	.35	2.66	.24	1.64	.15	26.83	1.31	28.14
58	6.89	.59	- .74	2.87	.24	1.31	.11	.89	.08	.55	.05	12.51	.33	12.84
59	12.13	0.48	- 1.24	6.06	.24	2.76	.11	1.88	.08	1.15	.05	23.98	- .28	23.70
60	42.09	1.55	- 4.29	71.55	2.63	32.65	1.20	22.17	.82	13.64	.50	182.10	2.41	184.51

Table 8

GRIDDED AREA SOURCES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
61	29.48	1.08	- 3.01	55.73	2.05	25.43	.94	17.29	.64	10.63	.39	138.56	2.09	140.65
62	18.58	2.30	- 2.05	2.71	.34	1.24	.15	.84	.10	.52	.06	23.89	0.90	24.79
63	13.09	.48	- 1.33	17.33	.64	7.91	.29	5.37	.20	3.31	.12	47.01	.40	47.41
64	20.15	1.62	- 2.14	4.23	.34	1.93	.15	1.31	.11	.81	.07	28.43	.14	28.57
65	5.13	.75	- .58	11.31	1.65	5.16	.75	3.50	.51	2.15	.31	27.25	3.39	30.64
66	1.23	.13	- .13	7.02	.72	3.21	.33	2.18	.22	1.34	.14	14.98	1.39	16.37
67	68.21	2.51	- 6.96	44.63	1.64	20.37	.75	13.83	.51	8.51	.31	155.55	- 1.24	154.31
68	5.42	.20	- .55	4.65	.17	2.12	.08	1.45	.05	.89	.03	14.53	- .02	14.51
69	.19	.02	- .02	1.53	.14	.70	.06	.47	.04	.29	.03	3.18	.27	3.45
70	5.54	.29	- .57	7.20	.38	3.28	.17	2.23	.12	1.38	.07	19.63	.45	20.08
71	17.50	1.58	- 1.88	82.85	7.49	37.81	3.42	25.69	2.32	15.80	1.43	179.65	14.36	194.01
72	4.93	.35	- .52	3.38	.24	1.54	.11	1.05	.08	.64	.05	11.54	.31	11.85
73	34.08	2.17	- 3.57	15.76	1.00	7.19	.46	4.88	.31	3.01	.19	64.92	.56	65.48
74	4.83	.38	- .51	4.34	.34	1.98	.16	1.35	.11	.83	.06	13.33	.53	13.86
75	6.50	.40	- .68	10.68	.65	4.87	.30	3.31	.20	2.03	.12	27.39	.99	28.38
76	28.11	1.64	- 2.93	31.84	1.86	14.53	.85	9.87	.58	6.07	.36	90.42	2.35	92.77
77	.95	.03	- .10	6.38	.23	2.91	.11	1.97	.07	1.22	.04	13.43	.40	13.83
78	35.96	1.70	- 3.70	30.70	1.46	14.01	.66	9.51	.45	5.85	.28	96.03	.85	96.88
79	9.04	1.03	- .99	3.69	.42	1.68	.19	1.14	.13	.70	.08	16.25	.87	17.12
80	15.38	2.80	- 1.79	12.44	2.27	5.68	1.03	3.85	.70	2.37	.43	39.72	5.45	45.17
81	12.39	.37	- 1.26	48.03	1.45	21.92	.66	14.88	.45	9.16	.28	106.38	1.95	108.33
82	27.01	.12	- 2.67	45.75	.21	20.88	.10	14.17	.07	8.72	.04	116.53	- 2.13	114.40
83	14.44	.31	- 1.45	15.33	.33	6.99	.15	4.75	.10	2.92	.06	44.43	- .50	43.93
84	28.06	- .42	- 2.72	33.71	- .51	15.38	- .23	10.45	- .16	6.43	-.10	94.03	- 4.14	89.89
85	18.94	1.67	- 2.03	15.33	1.36	6.99	.62	4.75	.42	2.92	.26	48.93	2.30	51.23
86	12.66	2.43	- 1.48	3.46	.66	1.58	.30	1.07	.21	.66	.13	19.43	2.24	21.67
87	3.55	.68	- .42	3.46	.66	1.58	.30	1.07	.21	.66	.13	10.32	1.56	11.88
88	5.5	1.05	- .64	13.60	2.61	6.21	1.19	4.22	.81	2.59	.50	32.12	5.51	37.63
89	18.13	1.66	- 1.87	44.55	4.07	20.33	1.86	13.81	1.26	8.50	.78	105.32	7.76	113.08
90	37.82	7.25	- 4.43	13.60	2.61	6.21	1.19	4.22	.81	2.59	.50	64.44	7.92	72.36

Table 8

GRIDDED AREA SOURCES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
91	2.80	.54	- .33	13.60	2.61	6.21	1.19	4.22	.81	2.59	.50	29.42	5.31	34.73
92	8.37	.61	- .88	32.35	2.37	14.76	1.08	10.02	.74	6.17	.45	71.67	4.38	76.05
93	4.69	- .09	- .45	3.11	- .06	1.42	- .03	.96	- .02	.59	- .01	10.77	- .65	10.12
94	10.22	.63	- 1.07	17.19	1.07	7.84	.49	5.33	.33	3.28	.20	43.86	1.66	45.52
95	27.46	1.55	- 2.85	27.69	1.56	12.64	.71	8.58	.48	5.28	.30	81.65	1.75	83.40
96	41.45	1.84	- 4.26	31.82	1.41	14.52	.64	9.86	.44	6.07	.27	103.72	.34	104.06
97	20.80	- 1.03	- 1.94	18.81	- .93	8.58	- .43	5.83	- .29	3.58	- .18	57.60	- 4.81	52.79
98	9.37	- .38	- .88	11.92	- .48	5.44	- .22	3.69	- .15	2.27	- .09	32.69	- 2.20	30.49
99	4.71	- .18	- .45	3.22	- .12	1.47	- .05	1.00	- .04	.61	- .02	11.01	- .86	10.15
100	10.50	- 2.08	- .83	16.10	-3.19	7.35	-1.46	4.99	- .99	3.08	- .61	42.02	- 9.16	32.86
101	29.31	- 1.50	- 2.75	12.83	- .66	5.86	- .30	3.98	- .20	2.45	- .13	54.43	- 5.52	48.91
102	2.63	- .13	- .25	5.83	- .30	2.66	- .14	1.81	- .09	1.11	- .06	14.04	- .96	13.08
103	6.37	- 2.07	- .42	3.64	-1.18	1.66	- .54	1.13	- .37	.69	- .22	13.49	- 4.80	8.69
04	35.74	-11.60	- 2.37	24.30	-7.89	11.09	-3.60	7.54	-2.45	4.63	-1.50	83.30	-29.42	53.88
105	.38	- .12	- .03	1.34	- .44	.61	- .20	.41	- .13	.25	- .08	2.99	- 1.00	1.99
106	.38	- .12	- .03	8.51	-2.76	3.88	-1.26	2.64	- .86	1.62	- .53	17.03	- 5.55	11.48
107	18.97	- 6.16	- 1.26	6.11	-1.98	2.79	- .91	1.89	- .61	1.17	- .38	30.93	-11.30	19.63
108	.38	- .12	- .03	5.11	-1.66	2.33	- .76	1.58	- .51	.97	- .31	10.37	- 3.39	6.98

Table 9

ADJUSTMENT OF "GRIDDED AREA SOURCE TABLE"
FOR 1972 POPULATION BASE

GRID	1972	Δ	1975	GRID	1972	Δ	1975	GRID	1972	Δ	1975
1	17.33	- .11	17.22	38	516.04	4.07	520.11	75	27.39	.59	27.98
2	27.43	2.56	29.99	39	223.87	6.80	230.67	76	90.42	1.41	91.83
3	29.00	1.07	30.07	40	214.55	5.09	219.64	77	13.43	.24	13.67
4	32.44	.62	33.06	41	189.59	4.65	194.24	78	96.03	.51	96.54
5	58.22	.49	58.71	42	63.30	4.16	67.46	79	16.25	.52	16.77
6	17.38	1.34	18.72	43	81.16	2.27	83.43	80	39.72	3.27	42.99
7	25.34	2.07	27.41	44	87.38	1.43	88.81	81	106.38	1.17	107.55
8	89.04	5.34	94.38	45	210.51	6.01	216.52	82	116.53	- 1.28	115.25
9	8.75	.68	9.43	46	35.11	1.24	36.35	83	44.43	- .30	44.13
10	30.47	.91	31.38	47	104.2	1.55	105.75	84	94.03	- 2.48	91.55
11	44.72	3.93	48.65	48	111.91	3.14	115.05	85	48.93	1.38	50.31
12	120.54	8.05	128.59	49	29.86	1.11	30.97	86	19.43	1.34	20.77
13	30.35	2.77	33.12	50	38.18	2.51	40.69	87	10.32	.94	11.26
14	9.52	.77	10.29	51	51.84	.84	52.68	88	32.12	3.31	35.43
15	30.35	.77	31.12	52	81.29	2.04	83.33	89	105.32	4.66	109.98
16	53.59	.85	54.44	53	8.61	.16	8.77	90	64.44	4.75	69.19
17	44.83	1.37	46.20	54	6.30	.48	6.78	91	29.42	3.19	32.61
18	83.35	6.54	89.89	55	247.62	17.06	264.68	92	71.67	2.63	74.30
19	177.09	14.17	191.26	56	41.54	1.43	42.97	93	10.77	- .39	10.38
20	148.64	10.26	158.90	57	26.83	.79	27.62	94	43.86	1.00	44.86
21	29.21	2.24	31.45	58	12.51	.20	12.71	95	81.65	1.05	82.70
22	127.76	10.63	138.39	59	23.98	- .17	23.81	96	103.72	.20	103.92
23	75.80	5.85	81.65	60	182.10	1.45	183.55	97	57.60	- 2.89	54.71
24	94.95	6.79	101.74	61	138.56	1.25	139.81	98	32.69	- 1.32	31.37
25	72.64	3.76	76.40	62	23.89	.54	24.43	99	11.01	- .52	10.49
26	81.51	2.51	84.02	63	47.01	.24	47.25	100	42.02	- 5.50	36.52
27	24.43	2.11	26.54	64	28.43	.08	28.51	101	54.43	- 3.31	51.12
28	7.54	.48	8.02	65	27.25	2.03	29.28	102	14.04	- .58	13.46
29	47.58	1.49	49.07	66	14.98	.83	15.81	103	13.49	- 2.88	10.61
30	108.14	3.44	111.58	67	155.55	- .74	154.81	104	83.30	-17.65	65.65
31	90.84	2.45	93.29	68	14.53	- .01	14.52	105	2.99	- .60	2.39
32	139.28	2.86	142.14	69	3.18	.16	3.34	106	17.03	- 3.33	13.70
33	139.17	5.49	144.66	70	19.63	.27	19.90	107	30.93	- 6.78	24.15
34	48.74	3.38	52.12	71	179.65	8.62	188.27	108	10.37	- 2.03	8.34
35	72.71	5.94	78.65	72	11.54	.19	11.73				
36	18.96	1.53	20.49	73	64.92	.34	65.26				
37	39.91	.25	40.16	74	13.33	.32	13.65				

Table 10

VA. AQCR 5

SUMMARY OF PARTICULATE MATTER MEASUREMENTS

Station ID	Coordinates Zone 18 E KM	N KM	Grid	Total Obs	1972 Quarterly Obs Count 1	2	3	4	Annual Geomet Mean	Observed # Over 260	Max	Expected Max	σ_g
71B	284	4146	61	57	11	19	15	19	48	0	154	230	1.75
72A	274.1	4164.5	22	26	0	0	14	12	37	0	69	98	1.42
72H	295.8	4153.6	55	31	3	28	0	0	43	0	125	220	1.78
72I	292.5	4146	65	57	3	27	14	13	22	0	98	130	1.56
72J	288	4162	34	57	3	29	14	11	45	0	121	165	1.62
74A	302.7	4130.7	72	81	27	25	4	25	33	0	131	180	1.85
75B	299.5	4135	69/71	8	0	4	4	0	58	0	77	109	1.26
154B	297.5	4130.2	71	56	15	16	15	10	87	1	319	485	1.84
157B	287.87	4123.3	83	27	0	4	13	10	72	0	191	330	1.73
158B	289.88	4157.38	44	33	0	0	33	0	68	0	119	151	1.34
177B	275.9	4063	23	55	0	9	27	19	32	0	71	92	1.48
158A	285.1	4157.6	41	51	14	13	14	10	86	0	157	193	1.35
158B	286.2	4156.5	45	30	14	8	8	0	77	0	139	186	1.37
158C	277.5	4161.3	29/30	30	13	8	9	0	51	0	107	154	1.49
158D	283.9	4163.4	26	29	13	8	8	0	48	0	102	151	1.51
158E	282.4	4158.4	39	29	13	7	9	0	70	0	113	146	1.30
158F	288	4157.3	46	23	10	6	7	0	54	0	95	132	1.39
158G	281.5	4154.5	47	30	14	8	8	0	73	0	136	183	1.38
158H	284	4158.1	40	22	12	4	6	0	83	0	177	283	1.55
158I	282.3	4150.7	51	28	12	7	9	0	59	0	102	139	1.36
158J	284.5	4155	44/48	30	13	8	9	0	96	0	248	412	1.56
158K	282.3	4160.7	31	21	4	8	9	0	74	0	132	197	1.41

Table 11
Virginia 1972
1/2

PARTICULATE EMISSIONS

Greater than 100 Tons per Year

Region 3 Virginia

UTM	County	Name	Tons/Year
17-645.1-4155.2	Bedford	Owens-Ill.	3309
17-780.0-4071.8	Brunswick	Brunswick Brick	8318
17-793.1-4070.0	Brunswick	Vulcan	3045
17-787.9-4092.7	Brunswick	So. Materials	6000
17-788.5-4071.7	Brunswick	Short Paving	232
17-682.5-4102.1	Campbell	Burlington Ind.	168
17-684.0-4151.0	Campbell	Rocliydrie	5000
17-674.0-4140.0	Campbell	Asphalt Paving	450
17-652.5-4108.2	Campbell	Lane Co.	401
17-659.9-4130.1	Campbell	Boxley	2640
17-690.3-4103.2	Charlotte	Williams	338
17-691.0-4065.0	Halifax	Vulcan	3500
17-690.0-4066.0	Halifax	Thompson	113
17-600.0-4060.4	Henry	American Fur.	1625
17-602.2-4061.2	Henry	Hooker Furniture	125
17-602.4-4049.8	Henry	Henry Co.	114
17-599.0-4058.0	Henry	Du Pont	1678
17-598.3-4066.3	Henry	Thompson	135
17-590.0-4068.5	Henry	Bassett Chair	124
17-664.5-4143.0	Lynchburg City	Glamorgan Pipe	1063
17-655.6-4125.4	Lynchburg City	Templeton & Son	675
17-665.4-4141.4	Lynchburg City	Lynchburg Fdvg.	699
17-665.9-4140.8	Lynchburg City	Mead Corp.	5862
17-721.0-4054.0	Mecklenberg	Burlington Ind.	1495
17-748.0-4120.0	Nottoway	Luck Quary	5200
17-748.0-4121.0	Nottoway	Bassett	818
17-640.9-4048.2	Pittsylvania	Dan River	742
17-650.1-4106.5	Pittsylvania	Burlington Ind.	3239
17-619.1-4044.6	Pittsylvania	Solite Corp.	719

C-31

Virginia 1972
2/2

Region 4 Virginia

UTM	County	Name	Tons/Year
18-432.7-4163.5	Accomack	Eller Inc.	450
17-194.9-4210.4	Albermarle	Williamson	338
17-201.0-4211.0	Albermarle	Luck	3866
17-183.1-4204.0	Albermarle	Superior	3000
17-175.6-4221.5	Albermarle	Superior	6950
18-292.3-4192.8	Caroline	Williamsburg	113
18-245.7-4258.5	Culpeper	Culpeper	5000
18-245.5-4258.4	Culpeper	Lee Hy.	406
18-210.9-4283.4	Fanquier	Sanoleon	2250
17-212.9-4175.6	Fluvanna	Va. Electric	13,815
18-340.3-4156.4	King William	Chesapeake Corp.	876
17-143.5-4174.9	Nelson	Templeton & Son	229
17-217.2-4231.4	Orange	Webster	20,250
17-252.4-4294.4	Rapahanack	Flint Hill	1000
18-357.0-4194.0	Richmond	Hannimack	348
18-281.5-4244.5	Spatsylvania	Culpeper Stone	1250

Region 6 Virginia

UTM	County	Name	Tons/Year
18-382.4-4074.8	Chesapeak City	Portsmouth	113
18-383.2-4069.2	Chesapeak City	International Steel	690
18-384.7-4070.5	Chesapeak City	Swift	410
18-385.0-4074.8	Chesapeak City	Royster	195
18-357.5-4117.4	James City	Dow Baslicke	159
18-341.1-4138.2	James City	Sheldon	156
18-358.5-4063.7	Nansomand	Swift	127
18-386.4-4077.8	Norfolk City	Va. Electic	520
18-383.6-4044.2	Portsmouth City	Atlantic Creosoting	432
18-370.4-4119.7	York	Va. Electric	5968